

JUL 16 1976

MICHAEL RODAK, JR., CLERK

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**In the Supreme Court of the United States**

OCTOBER TERM, 1976

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No. 75-978

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E. I. DU PONT DE NEMOURS AND COMPANY, ET AL.,  
*Petitioners,*

v.

RUSSELL E. TRAIN, as Administrator,  
Environmental Protection Agency, et al.,  
*Respondents.*

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**On Writ Of Certiorari To The United States  
Court Of Appeals For The Fourth Circuit**

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**APPENDICES TO PETITIONERS' BRIEF**

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## **APPENDICES TO PETITIONERS' BRIEF**

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**APPENDIX A**

The pertinent provisions of the Federal Water Pollution Control Act, as amended, 33 U.S.C. §§ 1251 *et seq.*, are as follows:

**§ 1251 [101\*]. Congressional declaration of goals and policy**

(a) The objective of this chapter is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this chapter—

(1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985;

(2) it is the national goal that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983;

(3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited;

(4) it is the national policy that Federal financial assistance be provided to construct publicly owned waste treatment works;

(5) it is the national policy that areawide waste treatment management planning processes be developed and implemented to assure adequate control of sources of pollutants in each State; and

(6) it is the national policy that a major research and demonstration effort be made to develop technology necessary to eliminate the discharge of pollutants into the navigable waters, waters of the contiguous zone, and the oceans.

(b) It is the policy of the Congress to recognize, preserve, and protect the primary responsibilities and rights of States to prevent, reduce, and eliminate pollution, to plan the development and use (including restoration, preservation, and enhancement) of land and water re-

\* Section numbers from the Act itself are bracketed alongside section numbers from 33 U.S.C.

sources, and to consult with the Administrator in the exercise of his authority under this chapter. It is further the policy of the Congress to support and aid research relating to the prevention, reduction, and elimination of pollution, and to provide Federal technical services and financial aid to State and interstate agencies and municipalities in connection with the prevention, reduction, and elimination of pollution.

(c) It is further the policy of Congress that the President, acting through the Secretary of State and such national and international organizations as he determines appropriate, shall take such action as may be necessary to insure that to the fullest extent possible all foreign countries shall take meaningful action for the prevention, reduction, and elimination of pollution in their waters and in international waters and for the achievement of goals regarding the elimination of discharge of pollutants and the improvement of water quality to at least the same extent as the United States does under its laws.

(d) Except as otherwise expressly provided in this chapter, the Administrator of the Environmental Protection Agency (hereinafter in this chapter called "Administrator") shall administer this chapter.

(e) Public participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established by the Administrator or any State under this chapter shall be provided for, encouraged, and assisted by the Administrator and the States. The Administrator, in cooperation with the States, shall develop and publish regulations specifying minimum guidelines for public participation in such processes.

(f) It is the national policy that to the maximum extent possible the procedures utilized for implementing this chapter shall encourage the drastic minimization of paperwork and interagency decision procedures, and the best use of available manpower and funds, so as to prevent needless

duplication and unnecessary delays at all levels of government.

**§ 1311 [301]. Effluent limitations—Illegality of pollutant discharges except in compliance with law**

(a) Except as in compliance with this section and sections 1312, 1316, 1317, 1328, 1342, and 1344 of this title, the discharge of any pollutant by any person shall be unlawful.

**Timetable for achievement of objectives**

(b) In order to carry out the objective of this chapter there shall be achieved—

(1) (A) not later than July 1, 1977, effluent limitations for point sources, other than publicly owned treatment works, (i) which shall require the application of the best practicable control technology currently available as defined by the Administrator pursuant to section 1314(b) of this title, or (ii) in the case of a discharge into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, which shall require compliance with any applicable pretreatment requirements and any requirements under section 1317 of this title; and

(B) for publicly owned treatment works in existence on July 1, 1977, or approved pursuant to section 1283 of this title prior to June 30, 1974 (for which construction must be completed within four years of approval), effluent limitations based upon secondary treatment as defined by the Administrator pursuant to section 1314(d) (1) of this title; or,

(C) not later than July 1, 1977, any more stringent limitation, including those necessary to meet water quality standards, treatment standards, or schedules of compliance, established pursuant to any State law or regulations (under authority preserved by section 1370 of this title) or any other Federal law or regulation, or required to implement any applicable water quality standard established pursuant to this chapter.



(2) (A) not later than July 1, 1983, effluent limitations for categories and classes of point sources, other than publicly owned treatment works, which (i) shall require application of the best available technology economically achievable for such category or class, which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b) (2) of this title, which such effluent limitations shall require the elimination of discharges of all pollutants if the Administrator finds, on the basis of information available to him (including information developed pursuant to section 1325 of this title), that such elimination is technologically and economically achievable for a category or class of point sources as determined in accordance with regulations issued by the Administrator pursuant to section 1314(b) (2) of this title, or (ii) in the case of the introduction of a pollutant into a publicly owned treatment works which meets the requirements of subparagraph (B) of this paragraph, shall require compliance with any applicable pretreatment requirements and any other requirement under section 1317 of this title; and

(B) not later than July 1, 1983, compliance by all publicly owned treatment works with the requirements set forth in section 1281(g) (2) (A) of this title.

#### **Modification of timetable**

(c) The Administrator may modify the requirements of subsection (b)(2)(A) of this section with respect to any point source for which a permit application is filed after July 1, 1977, upon a showing by the owner or operator of such point source satisfactory to the Administrator that such modified requirements (1) will represent the maximum use of technology within the economic capability of the owner or operator; and (2) will result in reasonable further progress toward the elimination of the discharge of pollutants.

#### **Review and revision of effluent limitations**

(d) Any effluent limitation required by paragraph (2) of subsection (b) of this section shall be reviewed at least

every five years and, if appropriate, revised pursuant to the procedure established under such paragraph.

#### **All point discharge source application of effluent limitations**

(e) Effluent limitations established pursuant to this section or section 1312 of this title shall be applied to all point sources of discharge of pollutants in accordance with the provisions of this chapter.

#### **Illegality of discharge of radiological, chemical, or biological warfare agents or high-level radioactive waste**

(f) Notwithstanding any other provisions of this chapter it shall be unlawful to discharge any radiological, chemical, or biological warfare agent or high-level radioactive waste into the navigable waters.

#### **§ 1312 [302]. Water quality related effluent limitations**

(a) Whenever, in the judgment of the Administrator, discharges of pollutants from a point source or group of point sources, with the application of effluent limitations required under section 1311(b) (2) of this title, would interfere with the attainment or maintenance of that water quality in a specific portion of the navigable waters which shall assure protection of public water supplies, agricultural and industrial uses, and the protection and propagation of a balanced population of shellfish, fish and wildlife, and allow recreational activities in and on the water, effluent limitations (including alternative effluent control strategies) for such point source or sources shall be established which can reasonably be expected to contribute to the attainment or maintenance of such water quality.

(b) (1) Prior to establishment of any effluent limitation pursuant to subsection (a) of this section, the Administrator shall issue notice of intent to establish such limitation and within ninety days of such notice hold a public hearing to determine the relationship of the economic and social

costs of achieving any such limitation or limitations, including any economic or social dislocation in the affected community or communities, to the social and economic benefits to be obtained (including the attainment of the objective of this chapter) and to determine whether or not such effluent limitations can be implemented with available technology or other alternative control strategies.

(2) If a person affected by such limitation demonstrates at such hearing that (whether or not such technology or other alternative control strategies are available) there is no reasonable relationship between the economic and social costs and the benefits to be obtained (including attainment of the objective of this chapter), such limitation shall not become effective and the Administrator shall adjust such limitation as it applies to such person.

(c) The establishment of effluent limitations under this section shall not operate to delay the application of any effluent limitation established under section 1311 of this title.

#### **§ 1314 [304]. Information and guidelines—Criteria development and publication**

(a) (1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after October 18, 1972 (and from time to time thereafter revise) criteria for water quality accurately reflecting the latest scientific knowledge (A) on the kind and extent of all identifiable effects on health and welfare including, but not limited to, plankton, fish, shellfish, wildlife, plant life, shorelines, beaches, esthetics, and recreation which may be expected from the presence of pollutants in any body of water, including ground water; (B) on the concentration and dispersal of pollutants, or their byproducts, through biological, physical, and chemical processes; and (C) on the effects of pollutants on biological community diversity, productivity, and stability, including information on the

factors affecting rates of eutrophication and rates of organic and inorganic sedimentation for varying types of receiving waters.

(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after October 18, 1972 (and from time to time thereafter revise) information (A) on the factors necessary to restore and maintain the chemical, physical, and biological integrity of all navigable waters, ground waters, waters of the contiguous zone, and the oceans; (B) on the factors necessary for the protection and propagation of shellfish, fish, and wildlife for classes and categories of receiving waters and to allow recreational activities in and on the water; and (C) on the measurement and classification of water quality; and (D) for the purpose of section 1313 of this title, on and the identification of pollutants suitable for maximum daily load measurement correlated with the achievement of water quality objectives.

(3) Such criteria and information and revisions thereof shall be issued to the States and shall be published in the Federal Register and otherwise made available to the public.

#### **Effluent limitation guidelines**

(b) For the purpose of adopting or revising effluent limitations under this chapter the Administrator shall, after consultation with appropriate Federal and State agencies and other interested persons, publish within one year of October 18, 1972, regulations, providing guidelines for effluent limitations and, at least annually thereafter, revise, if appropriate, such regulations. Such regulations shall—

(1) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best prac-



licable control technology currently available for classes and categories of point sources (other than publicly owned treatment works); and

(B) specify factors to be taken into account in determining the control measures and practices to be applicable to point sources (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best practicable control technology currently available to comply with subsection (b) (1) of section 1311 of this title shall include consideration of the total cost of application of technology in relation to the effluent reduction benefits to be achieved from such application, and shall also take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate;

(2) (A) identify, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods, and other alternatives for classes and categories of point sources (other than publicly owned treatment works); and

(B) specify factors to be taken into account in determining the best measures and practices available to comply with subsection (b) (2) of section 1311 of this title to be applicable to any point source (other than publicly owned treatment works) within such categories or classes. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the Administrator deems appropriate; and

(3) Identify control measures and practices available to eliminate the discharge of pollutants from categories and classes of point sources, taking into account the cost of achieving such elimination of the discharge of pollutants.

#### **Pollution discharge elimination procedures**

(c) The Administrator, after consultation, with appropriate Federal and State agencies and other interested persons, shall issue to the States and appropriate water pollution control agencies within 270 days after October 18, 1972 (and from time to time thereafter) information on the processes, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 1316 of this title. Such information shall include technical and other data, including costs, as are available on alternative methods of elimination or reduction of the discharge of pollutants. Such information, and revisions thereof, shall be published in the Federal Register and otherwise shall be made available to the public.

#### **Secondary treatment information; alternative waste treatment management techniques and systems**

(d) (1) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within sixty days after October 18, 1972 (and from time to time thereafter) information, in terms of amounts of constituents and chemical, physical, and biological characteristics of pollutants, on the degree of effluent reduction attainable through the application of secondary treatment.

(2) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall publish within nine months after October 18, 1972 (and from time to time thereafter) information on alternative waste treatment management techniques and systems available to implement section 1281 of this title.

**Identification and evaluation of nonpoint sources of pollution; processes, procedures, and methods to control pollution**

(e) The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall issue to appropriate Federal agencies, the States, water pollution control agencies, and agencies designated under section 1288 of this title, within one year after October 18, 1972 (and from time to time thereafter) information including (1) guidelines for identifying and evaluating the nature and extent of nonpoint sources of pollutants, and (2) processes, procedures, and methods to control pollution resulting from—

(A) agricultural and silvicultural activities, including runoff from fields and crop and forest lands;

(B) mining activities, including runoff and siltation from new, currently operating, and abandoned surface and underground mines;

(C) all construction activity, including runoff from the facilities resulting from such construction;

(D) the disposal of pollutants in wells or in subsurface excavations;

(E) salt water intrusion resulting from reductions of fresh water flow from any cause including extraction of ground water, irrigation, obstruction, and diversion; and

(F) changes in the movement, flow, or circulation of any navigable waters or ground waters, including changes caused by the construction of dams, levees, channels, causeways, or flow diversion facilities.

Such information and revisions thereof shall be published in the Federal Register and otherwise made available to the public.

**Guidelines for pretreatment of pollutants**

(f) (1) For the purpose of assisting States in carrying out programs under section 1342 of this title, the Administrator shall publish, within one hundred and twenty days

after October 18, 1972, and review at least annually thereafter and, if appropriate, revise guidelines for pretreatment of pollutants which he determines are not susceptible to treatment by publicly owned treatment works. Guidelines under this subsection shall be established to control and prevent the discharge into the navigable waters, the contiguous zone, or the ocean (either directly or through publicly owned treatment works) of any pollutant which interferes with, passes through, or otherwise is incompatible with such works.

(2) When publishing guidelines under this subsection, the Administrator shall designate the category or categories of treatment works to which the guidelines shall apply.

**Test procedure guidelines**

(g) The Administrator shall, within one hundred and eighty days from October 18, 1972, promulgate guidelines establishing test procedures for the analysis of pollutants that shall include the factors which must be provided in any certification pursuant to section 1341 of this title or permit application pursuant to section 1342 of this title.

**Guidelines for monitoring, reporting, enforcement, funding, personnel, and manpower**

(h) The Administrator shall (1) within sixty days after October 18, 1972, promulgate guidelines for the purpose of establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources of discharge subject to any State program under section 1342 of this title, and (2) within sixty days from October 18, 1972, promulgate guidelines establishing the minimum procedural and other elements of any State program under section 1342 of this title which shall include:

(A) monitoring requirements;

(B) reporting requirements (including procedures to make information available to the public);



(C) enforcement provisions; and

(D) funding, personnel qualifications, and manpower requirements (including a requirement that no board or body which approves permit applications or portions thereof shall include, as a member, any person who receives, or has during the previous two years received, a significant portion of his income directly or indirectly from permit holders or applicants for a permit.)

**Restoration and enhancement of publicly owned fresh water lakes**

(i) The Administrator shall, within 270 days after October 18, 1972 (and from time to time thereafter), issue such information on methods, procedures, and processes as may be appropriate to restore and enhance the quality of the Nation's publicly owned fresh water lakes.

**Agreements with Secretaries of Agriculture, Army, and Interior to provide maximum utilization of programs to achieve and maintain water quality; transfer of funds; authorization of appropriations**

(j) (1) The Administrator shall, within six months from October 18, 1972, enter into agreements with the Secretary of Agriculture, the Secretary of the Army, and the Secretary of the Interior to provide for the maximum utilization of the appropriate programs authorized under other Federal law to be carried out by such Secretaries for the purpose of achieving and maintaining water quality through appropriate implementation of plans approved under section 1288 of this title.

(2) The Administrator, pursuant to any agreement under paragraph (1) of this subsection is authorized to transfer to the Secretary of Agriculture, the Secretary of the Army, or the Secretary of the Interior any funds appropriated under paragraph (3) of this subsection to supplement any funds otherwise appropriated to carry out

appropriate programs authorized to be carried out by such Secretaries.

(3) There is authorized to be appropriated to carry out the provisions of this subsection, \$100,000,000 per fiscal year for the fiscal year ending June 30, 1973, and the fiscal year ending June 30, 1974.

**§ 1316 [306]. National standards of performance—Definitions**

(a) For purposes of this section:

(1) The term "standard of performance" means a standard for the control of the discharge of pollutants which reflects the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(2) The term "new source" means any source, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under this section which will be applicable to such source, if such standard is thereafter promulgated in accordance with this section.

(3) The term "source" means any building, structure, facility, or installation from which there is or may be the discharge of pollutants.

(4) The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a source.

(5) The term "construction" means any placement, assembly, or installation of facilities or equipment (including contractual obligations to purchase such facilities or equipment) at the premises where such equipment will be used, including preparation work at such premises.

**Categories of sources; Federal standards of performance for new sources**

(b) (1) (A) The Administrator shall, within ninety days after October 18, 1972, publish (and from time to time thereafter shall revise) a list of categories of sources, which shall, at the minimum, include:

- pulp and paper mills;
- paperboard, builders paper and board mills;
- meat product and rendering processing;
- dairy product processing;
- grain mills;
- canned and preserved fruits and vegetables processing;
- canned and preserved seafood processing;
- sugar processing;
- textile mills;
- cement manufacturing;
- feedlots;
- electroplating;
- organic chemicals manufacturing;
- inorganic chemicals manufacturing;
- plastic and synthetic materials manufacturing;
- soap and detergent manufacturing;
- fertilizer manufacturing;
- petroleum refining;
- iron and steel manufacturing;
- nonferrous metals manufacturing;
- phosphate manufacturing;
- steam electric powerplants;
- ferroalloy manufacturing;
- leather tanning and finishing;
- glass and asbestos manufacturing;
- rubber processing; and
- timber products processing.

(B) As soon as practicable, but in no case more than one year, after a category of sources is included in a list under subparagraph (A) of this paragraph, the Administrator shall propose and publish regulations establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one hundred and twenty days

after publication of such proposed regulations, such standards with such adjustments as he deems appropriate. The Administrator shall, from time to time, as technology and alternatives change, revise such standards following the procedure required by this subsection for promulgation of such standards. Standards of performance, or revisions thereof, shall become effective upon promulgation. In establishing or revising Federal standards of performance for new sources under this section, the Administrator shall take into consideration the cost of achieving such effluent reduction, and any non-water quality environmental impact and energy requirements.

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards and shall consider the type of process employed (including whether batch or continuous).

(3) The provisions of this section shall apply to any new source owned or operated by the United States.

**State enforcement of standards of performance**

(c) Each State may develop and submit to the Administrator a procedure under State law for applying and enforcing standards of performance for new sources located in such State. If the Administrator finds that the procedure and the law of any State require the application and enforcement of standards of performance to at least the same extent as required by this section, such State is authorized to apply and enforce such standards of performance (except with respect to new sources owned or operated by the United States).

**Protection from more stringent standards**

(d) Notwithstanding any other provision of this chapter, any point source the construction of which is commenced after October 18, 1972, and which is so constructed



as to meet all applicable standards of performance shall not be subject to any more stringent standard of performance during a ten-year period beginning on the date of completion of such construction or during the period of depreciation or amortization of such facility for the purposes of section 167 or 169 (or both) of Title 26, whichever period ends first.

**Illegality of operation of new sources in violation of applicable standards of performance**

(e) After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

**§ 1317 [307]. Toxic and pretreatment effluent standards; establishment; revision; illegality of source operation in violation of standards**

(a) (1) The Administrator shall, within ninety days after October 18, 1972, publish (and from time to time thereafter revise) a list which includes any toxic pollutant or combination of such pollutants for which an effluent standard (which may include a prohibition of the discharge of such pollutants or combination of such pollutants) will be established under this section. The Administrator in publishing such list shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms.

(2) Within one hundred and eighty days after the date of publication of any list, or revision thereof, containing toxic pollutants or combination of pollutants under paragraph (1) of this subsection, the Administrator, in accordance with section 553 of Title 5, shall publish a proposed

effluent standard (or a prohibition) for such pollutant or combination of pollutants which shall take into account the toxicity of the pollutant, its persistence, degradability, the usual or potential presence of the affected organisms in any waters, the importance of the affected organisms and the nature and extent of the effect of the toxic pollutant on such organisms, and he shall publish a notice for a public hearing on such proposed standard to be held within thirty days. As soon as possible after such hearing, but not later than six months after publication of the proposed effluent standard (or prohibition), unless the Administrator finds, on the record, that a modification of such proposed standard (or prohibition) is justified based upon a preponderance of evidence adduced at such hearings, such standard (or prohibition) shall be promulgated.

(3) If after a public hearing the Administrator finds that a modification of such proposed standard (or prohibition) is justified, a revised effluent standard (or prohibition) for such pollutant or combination of pollutants shall be promulgated immediately. Such standard (or prohibition) shall be reviewed and, if appropriate, revised at least every three years.

(4) Any effluent standard promulgated under this section shall be at that level which the Administrator determines provides an ample margin of safety.

(5) When proposing or promulgating any effluent standard (or prohibition) under this section, the Administrator shall designate the category or categories of sources to which the effluent standard (or prohibition) shall apply. Any disposal of dredged material may be included in such a category of sources after consultation with the Secretary of the Army.

(6) Any effluent standard (or prohibition) established pursuant to this section shall take effect on such date or dates as specified in the order promulgating such standard, but in no case more than one year from the date of such promulgation.

(7) Prior to publishing any regulations pursuant to this section the Administrator shall, to the maximum extent practicable within the time provided, consult with appropriate advisory committees, States, independent experts, and Federal departments and agencies.

(b) (1) The Administrator shall, within one hundred and eighty days after October 18, 1972, and from time to time thereafter, publish proposed regulations establishing pretreatment standards for introduction of pollutants into treatment works (as defined in section 1292 of this title) which are publicly owned for those pollutants which are determined not to be susceptible to treatment by such treatment works or which would interfere with the operation of such treatment works. Not later than ninety days after such publication, and after opportunity for public hearing, the Administrator shall promulgate such pretreatment standards. Pretreatment standards under this subsection shall specify a time for compliance not to exceed three years from the date of promulgation and shall be established to prevent the discharge of any pollutant through treatment works (as defined in section 1292 of this title) which are publicly owned, which pollutant interferes with, passes through, or otherwise is incompatible with such works.

(2) The Administrator shall, from time to time, as control technology, processes, operating methods, or other alternatives change, revise such standards following the procedure established by this subsection for promulgation of such standards.

(3) When proposing or promulgating any pretreatment standard under this section, the Administrator shall designate the category or categories of sources to which such standard shall apply.

(4) Nothing in this subsection shall affect any pretreatment requirement established by any State or local law not in conflict with any pretreatment standard established under this subsection.

(c) In order to insure that any source introducing pollutants into a publicly owned treatment works, which source would be a new source subject to section 1316 of this title if it were to discharge pollutants, will not cause a violation of the effluent limitations established for any such treatment works, the Administrator shall promulgate pretreatment standards for the category of such sources simultaneously with the promulgation of standards of performance under section 1316 of this title for the equivalent category of new sources. Such pretreatment standards shall prevent the discharge of any pollutant into such treatment works, which pollutant may interfere with, pass through, or otherwise be incompatible with such works.

(d) After the effective date of any effluent standard or prohibition or pretreatment standard promulgated under this section, it shall be unlawful for any owner or operator of any source to operate any source in violation of any such effluent standard or prohibition or pretreatment standard.

#### **§ 1319 [309]. Enforcement—State enforcement; compliance orders**

(a) (1) Whenever, on the basis of any information available to him, the Administrator finds that any person is in violation of any condition or limitation which implements section 1311, 1312, 1316, 1317, or 1318 of this title in a permit issued by a State under an approved permit program under section 1342 of this title, he shall proceed under his authority in paragraph (3) of this subsection or he shall notify the person in alleged violation and such State of such finding. If beyond the thirtieth day after the Administrator's notification the State has not commenced appropriate enforcement action, the Administrator shall issue an order requiring such person to comply with such condition or limitation or shall bring a civil action in accordance with subsection (b) of this section.

(2) Whenever, on the basis of information available to him, the Administrator finds that violations of permit con-



ditions or limitations as set forth in paragraph (1) of this subsection are so widespread that such violations appear to result from a failure of the State to enforce such permit conditions or limitations effectively, he shall so notify the State. If the Administrator finds such failure extends beyond the thirtieth day after such notice, he shall give public notice of such finding. During the period beginning with such public notice and ending when such State satisfies the Administrator that it will enforce such conditions and limitations (hereafter referred to in this section as the period of "federally assumed enforcement"), the Administrator shall enforce any permit condition or limitation with respect to any person—

(A) by issuing an order to comply with such condition or limitation, or

(B) by bringing a civil action under subsection (b) of this section.

(3) Whenever on the basis of any information available to him the Administrator finds that any person is in violation of section 1311, 1312, 1316, 1317, or 1318 of this title, or is in violation of any permit condition or limitation implementing any of such sections in a permit issued under section 1342 of this title by him or by a State, he shall issue an order requiring such person to comply with such section or requirement, or he shall bring a civil action in accordance with subsection (b) of this section.

(4) A copy of any order issued under this subsection shall be sent immediately by the Administrator to the State in which the violation occurs and other affected States. Any order issued under this subsection shall be by personal service and shall state with reasonable specificity the nature of the violation, specify a time for compliance, not to exceed thirty days, which the Administrator determines is reasonable, taking into account the seriousness of the violation and any good faith efforts to comply with applicable requirements. In any case in which an order under this subsection (or notice to a violator under paragraph (1) of this subsection) is issued to a corporation, a copy of such

order (or notice) shall be served on any appropriate corporate officers. An order issued under this subsection relating to a violation of section 1318 of this title shall not take effect until the person to whom it is issued has had an opportunity to confer with the Administrator concerning the alleged violation.

### **Civil actions**

(b) The Administrator is authorized to commence a civil action for appropriate relief, including a permanent or temporary injunction, for any violation for which he is authorized to issue a compliance order under subsection (a) of this section. Any action under this subsection may be brought in the district court of the United States for the district in which the defendant is located or resides or is doing business, and such court shall have jurisdiction to restrain such violation and to require compliance. Notice of the commencement of such action shall be given immediately to the appropriate State.

### **Criminal penalties**

(c) (1) Any person who willfully or negligently violates section 1311, 1312, 1316, 1317, or 1318 of this title, or any permit condition or limitation implementing any of such sections in a permit issued under section 1342 of this title by the Administrator or by a State, shall be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or by both. If the conviction is for a violation committed after a first conviction of such person under this paragraph, punishment shall be by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two years, or by both.

(2) Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained under this chapter, or who falsifies, tam-

pers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this chapter, shall upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six months, or by both.

(3) For the purposes of this subsection, the term "person" shall mean, in addition to the definition contained in section 1362(5) of this title, any responsible corporate officer.

#### **Civil penalties**

(d) Any person who violates section 1311, 1312, 1316, 1317, or 1318 of this title, or any permit condition or limitation implementing any of such sections in a permit issued under section 1342 of this title by the Administrator, or by a State, and any person who violates any order issued by the Administrator under subsection (a) of this section, shall be subject to a civil penalty not to exceed \$10,000 per day of such violation.

#### **State liability for judgments and expenses**

(e) Whenever a municipality is a party to a civil action brought by the United States under this section, the State in which such municipality is located shall be joined as a party. Such State shall be liable for payment of any judgment, or any expenses incurred as a result of complying with any judgment, entered against the municipality in such action to the extent that the laws of that State prevent the municipality from raising revenues needed to comply with such judgment.

#### **§ 1341 [401]. Certification—Compliance with applicable requirements; application; procedures; license suspension**

(a) (1) Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the con-

struction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 1311, 1312, 1316, and 1317 of this title. In the case of any such activity for which there is not an applicable effluent limitation or other limitation under sections 1311(b) and 1312 of this title, and there is not an applicable standard under sections 1316 and 1317 of this title, the State shall so certify, except that any such certification shall not be deemed to satisfy section 1371(c) of this title. Such State or interstate agency shall establish procedures for public notice in the case of all applications for certification by it and, to the extent it deems appropriate, procedures for public hearings in connection with specific applications. In any case where a State or interstate agency has no authority to give such a certification, such certification shall be from the Administrator. If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. No license or permit shall be granted if certification has been denied by the State, interstate agency, or the Administrator, as the case may be.

(2) Upon receipt of such application and certification the licensing or permitting agency shall immediately notify the Administrator of such application and certification. Whenever such a discharge may affect, as determined by the Administrator, the quality of the waters of any other



State, the Administrator within thirty days of the date of notice of application for such Federal license or permit shall so notify such other State, the licensing or permitting agency, and the applicant. If, within sixty days after receipt of such notification, such other State determines that such discharge will affect the quality of its waters so as to violate any water quality requirement in such State, and within such sixty-day period notifies the Administrator and the licensing or permitting agency in writing of its objection to the issuance of such license or permit and requests a public hearing on such objection, the licensing or permitting agency shall hold such a hearing. The Administrator shall at such hearing submit his evaluation and recommendations with respect to any such objection to the licensing or permitting agency. Such agency, based upon the recommendations of such State, the Administrator, and upon any additional evidence, if any, presented to the agency at the hearing, shall condition such license or permit in such manner as may be necessary to insure compliance with applicable water quality requirements. If the imposition of conditions cannot insure such compliance such agency shall not issue such license or permit.

(3) The certification obtained pursuant to paragraph (1) of this subsection with respect to the construction of any facility shall fulfill the requirements of this subsection with respect to certification in connection with any other Federal license or permit required for the operation of such facility unless, after notice to the certifying State, agency, or Administrator, as the case may be, which shall be given by the Federal agency to whom application is made for such operating license or permit, the State, or if appropriate, the interstate agency or the Administrator, notifies such agency within sixty days after receipt of such notice that there is no longer reasonable assurance that there will be compliance with the applicable provisions of sections 1311, 1312, 1316, and 1317 of this title because of changes since the construction license or permit certification was issued in (A) the construction or operation of the facility,

(B) the characteristics of the waters into which such discharge is made, (C) the water quality criteria applicable to such waters or (D) applicable effluent limitations or other requirements. This paragraph shall be inapplicable in any case where the applicant for such operating license or permit has failed to provide the certifying State, or if appropriate, the interstate agency or the Administrator, with notice of any proposed changes in the construction or operation of the facility with respect to which a construction license or permit has been granted, which changes may result in violation of section 1311, 1312, 1316, or 1317 of this title.

(4) Prior to the initial operation of any federally licensed or permitted facility or activity which may result in any discharge into the navigable waters and with respect to which a certification has been obtained pursuant to paragraph (1) of this subsection, which facility or activity is not subject to a Federal operating license or permit, the licensee or permittee shall provide an opportunity for such certifying State, or, if appropriate, the interstate agency or the Administrator to review the manner in which the facility or activity shall be operated or conducted for the purposes of assuring that applicable effluent limitations or other limitations or other applicable water quality requirements will not be violated. Upon notification by the certifying State, or if appropriate, the interstate agency or the Administrator that the operation of any such federally licensed or permitted facility or activity will violate applicable effluent limitations or other limitations or other water quality requirements such Federal agency may, after public hearing, suspend such license or permit. If such license or permit is suspended, it shall remain suspended until notification is received from the certifying State, agency, or Administrator, as the case may be, that there is reasonable assurance that such facility or activity will not violate the applicable provisions of section 1311, 1312, 1316, or 1317 of this title.

(5) Any Federal license or permit with respect to which a certification has been obtained under paragraph (1) of this subsection may be suspended or revoked by the Federal agency issuing such license or permit upon the entering of a judgment under this chapter that such facility or activity has been operated in violation of the applicable provisions of section 1311, 1312, 1316, or 1317 of this title.

(6) No Federal agency shall be deemed to be an applicant for the purposes of this subsection.

(7) Except with respect to a permit issued under section 1342 of this title, in any case where actual construction of a facility has been lawfully commenced prior to April 3, 1970, no certification shall be required under this subsection for a license or permit issued after April 3, 1970, to operate such facility, except that any such license or permit issued without certification shall terminate April 3, 1973, unless prior to such termination date the person having such license or permit submits to the Federal agency which issued such license or permit a certification and otherwise meets the requirements of this section.

#### **Compliance with other provisions of law setting applicable water quality requirements**

(b) Nothing in this section shall be construed to limit the authority of any department or agency pursuant to any other provision of law to require compliance with any applicable water quality requirements. The Administrator shall, upon the request of any Federal department or agency, or State or interstate agency, or applicant, provide, for the purpose of this section, any relevant information on applicable effluent limitations, or other limitations, standards, regulations, or requirements, or water quality criteria, and shall, when requested by any such department or agency or State or interstate agency, or applicant, comment on any methods to comply with such limitations, standards, regulations, requirements, or criteria.

#### **Authority of Secretary of the Army to permit use of spoil disposal areas by Federal licensees or permittees**

(c) In order to implement the provisions of this section, the Secretary of the Army, acting through the Chief of Engineers, is authorized, if he deems it to be in the public interest, to permit the use of spoil disposal areas under his jurisdiction by Federal licensees or permittees, and to make an appropriate charge for such use. Moneys received from such licensees or permittees shall be deposited in the Treasury as miscellaneous receipts.

#### **Limitations and monitoring requirements of certification**

(d) Any certification provided under this section shall set forth any effluent limitations and other limitations, and monitoring requirements necessary to assure that any applicant for a Federal license or permit will comply with any applicable effluent limitations and other limitations, under section 1311 or 1312 of this title, standard of performance under section 1316 of this title, or prohibition, effluent standard, or pretreatment standard under section 1317 of this title, and with any other appropriate requirement of State law set forth in such certification, and shall become a condition on any Federal license or permit subject to the provisions of this section.

#### **§ 1342 [402]. National pollutant discharge elimination system—Permits for discharge of pollutants**

(a) (1) Except as provided in sections 1328 and 1344 of this title, the Administrator may, after opportunity for public hearing, issue a permit for the discharge of any pollutant, or combination of pollutants, notwithstanding section 1311(a) of this title, upon condition that such discharge will meet either all applicable requirements under sections 1311, 1312, 1316, 1317, 1318, and 1343 of this title, or prior to the taking of necessary implementing actions relating to all such requirements, such conditions as



the Administrator determines are necessary to carry out the provisions of this chapter.

(2) The Administrator shall prescribe conditions for such permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate.

(3) The permit program of the Administrator under paragraph (1) of this subsection, and permits issued thereunder, shall be subject to the same terms, conditions, and requirements as apply to a State permit program and permits issued thereunder under subsection (b) of this section.

(4) All permits for discharges into the navigable waters issued pursuant to section 407 of this title, shall be deemed to be permits issued under this title, and permits issued under this title shall be deemed to be permits issued under section 407 of this title, and shall continue in force and effect for their term unless revoked, modified, or suspended in accordance with the provisions of this chapter.

(5) No permit for a discharge into the navigable waters shall be issued under section 407 of this title after October 18, 1972. Each application for a permit under section 407 of this title, pending on October 18, 1972, shall be deemed to be an application for a permit under this section. The Administrator shall authorize a State, which he determines has the capability of administering a permit program which will carry out the objective of this chapter, to issue permits for discharges into the navigable waters within the jurisdiction of such State. The Administrator may exercise the authority granted him by the preceding sentence only during the period which begins on October 18, 1972, and ends either on the ninetieth day after the date of the first promulgation of guidelines required by section 1314(h) (2) of this title, or the date of approval by the Administrator of a permit program for such State under subsection (b) of this section, whichever date first occurs, and no such authorization to a State shall extend

beyond the last day of such period. Each such permit shall be subject to such conditions as the Administrator determines are necessary to carry out the provisions of this chapter. No such permit shall issue if the Administrator objects to such issuance.

### **State permit programs**

(b) At any time after the promulgation of the guidelines required by subsection (h) (2) of section 1314 of this title, the Governor of each State desiring to administer its own permit program for discharges into navigable waters within its jurisdiction may submit to the Administrator a full and complete description of the program it proposes to establish and administer under State law or under an interstate compact. In addition, such State shall submit a statement from the attorney general (or the attorney for those State water pollution control agencies which have independent legal counsel), or from the chief legal officer in the case of an interstate agency, that the laws of such State, or the interstate compact, as the case may be, provide adequate authority to carry out the described program. The Administrator shall approve each such submitted program unless he determines that adequate authority does not exist:

(1) To issue permits which—

(A) apply, and insure compliance with, any applicable requirements of sections 1311, 1312, 1316, 1317, and 1343 of this title;

(B) are for fixed terms not exceeding five years; and

(C) can be terminated or modified for cause including, but not limited to, the following:

(i) violation of any condition of the permit;

(ii) obtaining a permit of misrepresentation, or failure to disclose fully all relevant facts;

(iii) change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge;

(D) control the disposal of pollutants into wells;

(2) (A) To issue permits which apply, and insure compliance with, all applicable requirements of section 1318 of this title, or

(B) To inspect, monitor, enter, and require reports to at least the same extent as required in section 1318 of this title;

(3) To insure that the public, and any other State the waters of which may be affected, receive notice of each application for a permit and to provide an opportunity for public hearing before a ruling on each such application;

(4) To insure that the Administrator receives notice of each application (including a copy thereof) for a permit;

(5) To insure that any State (other than the permitting State), whose waters may be affected by the issuance of a permit may submit written recommendations to the permitting State (and the Administrator) with respect to any permit application and, if any part of such written recommendations are not accepted by the permitting State, that the permitting State will notify such affected State (and the Administrator) in writing of its failure to so accept such recommendations together with its reasons for so doing;

(6) To insure that no permit will be issued if, in the judgment of the Secretary of the Army acting through the Chief of Engineers, after consultation with the Secretary of the department in which the Coast Guard is operating, anchorage and navigation of any of the navigable waters would be substantially impaired thereby;

(7) To abate violations of the permit or the permit program, including civil and criminal penalties and other ways and means of enforcement;

(8) To insure that any permit for a discharge from a publicly owned treatment works includes conditions to require adequate notice to the permitting agency of (A) new introductions into such works of pollutants from any source which would be a new source as defined in section 1316 of this title if such source were discharging pollutants, (B) new introductions of pollutants into such works from a source which would be subject to section 1311 of this title if it were discharging such pollutants, or (C) a substantial change in volume or character of pollutants being introduced into such works by a source introducing pollutants into such works at the time of issuance of the permit. Such notice shall include information on the quality and quantity of effluent to be introduced into such treatment works and any anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works; and

(9) To insure that any industrial user of any publicly owned treatment works will comply with sections 1284(b), 1317, and 1318 of this title.

#### **Suspension of federal program upon submission of State program; withdrawal of approval of State program**

(c) (1) Not later than ninety days after the date on which a State has submitted a program (or revision thereof) pursuant to subsection (b) of this section, the Administrator shall suspend the issuance of permits under subsection (a) of this section as to those navigable waters subject to such program unless he determines that the State permit program does not meet the requirements of subsection (b) of this section or does not conform to the guidelines issued under section 1314(h) (2) of this title. If the Administrator so determines, he shall notify the State of any revisions or modifications necessary to conform to such requirements or guidelines.

(2) Any State permit program under this section shall at all times be in accordance with this section and guide-



lines promulgated pursuant to section 1314(h) (2) of this title.

(3) Whenever the Administrator determines after public hearing that a State is not administering a program approved under this section in accordance with requirements of this section, he shall so notify the State and, if appropriate corrective action is not taken within a reasonable time, not to exceed ninety days, the Administrator shall withdraw approval of such program. The Administrator shall not withdraw approval of any such program unless he shall first have notified the State, and made public, in writing, the reasons for such withdrawal.

#### **Notification of Administrator**

(d) (1) Each State shall transmit to the Administrator a copy of each permit application received by such State and provide notice to the Administrator of every action related to the consideration of such permit application, including each permit proposed to be issued by such State.

(2) No permit shall issue (A) if the Administrator within ninety days of the date of his notification under subsection (b) (5) of this section objects in writing to the issuance of such permit, or (B) if the Administrator within ninety days of the date of transmittal of the proposed permit by the State objects in writing to the issuance of such permit as being outside the guidelines and requirements of this chapter.

(3) The Administrator may, as to any permit application, waive paragraph (2) of this subsection.

#### **Waiver of notification requirement**

(e) In accordance with guidelines promulgated pursuant to subsection (h) (2) of section 1314 of this title, the Administrator is authorized to waive the requirements of subsection (d) of this section at the time he approves a program pursuant to subsection (b) of this section for any

category (including any class, type, or size within such category) of point sources within the State submitting such program.

#### **Point source categories**

(f) The Administrator shall promulgate regulations establishing categories of point sources which he determines shall not be subject to the requirements of subsection (d) of this section in any State with a program approved pursuant to subsection (b) of this section. The Administrator may distinguish among classes, types, and sizes within any category of point sources.

#### **Other regulations for safe transportation, handling, carriage, storage, and stowage of pollutants**

(g) Any permit issued under this section for the discharge of pollutants into the navigable waters from a vessel or other floating craft shall be subject to any applicable regulations promulgated by the Secretary of the department in which the Coast Guard is operating, establishing specifications for safe transportation, handling, carriage, storage, and stowage of pollutants.

#### **Violation of permit conditions; restriction or prohibition upon introduction of pollutant by source not previously utilizing treatment works**

(h) In the event any condition of a permit for discharges from a treatment works (as defined in section 1292 of this title) which is publicly owned is violated, a State with a program approved under subsection (b) of this section or the Administrator, where no State program is approved, may proceed in a court of competent jurisdiction to restrict or prohibit the introduction of any pollutant into such treatment works by a source not utilizing such treatment works prior to the finding that such condition was violated.

### **Federal enforcement not limited**

(i) Nothing in this section shall be construed to limit the authority of the Administrator to take action pursuant to section 1319 of this title.

### **Public information**

(j) A copy of each permit application and each permit issued under this section shall be available to the public. Such permit application or permit, or portion thereof, shall further be available on request for the purposes of reproduction.

### **Compliance with permits**

(k) Compliance with a permit issued pursuant to this section shall be deemed compliance, for purposes of sections 1319 and 1365 of this title, with sections 1311, 1312, 1316, 1317, and 1343 of this title, except any standard imposed under section 1317 of this title for a toxic pollutant injurious to human health. Until December 31, 1974, in any case where a permit for discharge has been applied for pursuant to this section, but final administrative disposition of such application has not been made, such discharge shall not be a violation of (1) section 1311, 1316, or 1342 of this title, or (2) section 407 of this title, unless the Administrator or other plaintiff proves that final administrative disposition of such application has not been made because of the failure of the applicant to furnish information reasonably required or requested in order to process the application. For the 180-day period beginning on October 18, 1972, in the case of any point source discharging any pollutant or combination of pollutants immediately prior to such date of enactment which source is not subject to section 407 of this title, the discharge by such source shall not be a violation of this chapter if such a source applies for a permit for discharge pursuant to this section within such 180-day period.

## **§ 1362 [502]. General Definitions**

Except as otherwise specifically provided, when used in this Act:

(1) The term "State water pollution control agency" means the State agency designated by the Governor having responsibility for enforcing State laws relating to the abatement of pollution.

(2) The term "interstate agency" means an agency of two or more States established by or pursuant to an agreement or compact approved by the Congress, or any other agency of two or more States, having substantial powers or duties pertaining to the control of pollution as determined and approved by the Administrator.

(3) The term "State" means a State, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Trust Territory of the Pacific Islands.

(4) The term "municipality" means a city, town, borough, county, parish, district, association, or other public body created by or pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under section 208 of this Act.

(5) The term "person" means an individual, corporation, partnership, association, State, municipality, commission, or political subdivision of a State, or any interstate body.

(6) The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, and agricultural waste discharged into water. This term does not mean (A) "sewage from vessels" within the meaning of section 312 of this Act; or (B) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well used



either to facilitate production or for disposal purposes is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in the degradation of ground or surface water resources.

(7) The term "navigable waters" means the waters of the United States, including the territorial seas.

(8) The term "territorial seas" means the belt of the seas measured from the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters, and extending seaward a distance of three miles.

(9) The term "contiguous zone" means the entire zone established or to be established by the United States under article 24 of the Convention of the Territorial Sea and the Contiguous Zone.

(10) The term "ocean" means any portion of the high seas beyond the contiguous zone.

(11) The term "effluent limitation" means any restriction established by a State or the Administrator on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are discharged from point sources into navigable waters, the waters of the contiguous zone, or the ocean, including schedules of compliance.

(12) The term "discharge of a pollutant" and the term "discharge of pollutants" each means (A) any addition of any pollutant to navigable waters from any point source, (B) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft.

(13) The term "toxic pollutant" means those pollutants, or combinations of pollutants, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from the environment or indirectly by ingestion through food chains, will, on the basis of information available to the Administrator, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring.

(14) The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

(15) The term "biological monitoring" shall mean the determination of the effects on aquatic life, including accumulation of pollutants in tissue, in receiving waters due to the discharge of pollutants (A) by techniques and procedures, including sampling of organisms representative of appropriate levels of the food chain appropriate to the volume and the physical, chemical, and biological characteristics of the effluent, and (B) at appropriate frequencies and locations.

(16) The term "discharge" when used without qualification includes a discharge of a pollutant, and a discharge of pollutants.

(17) The term "schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an effluent limitation, other limitation, prohibition, or standard.

(18) The term "industrial user" means those industries identified in the Standard Industrial Classification Manual, Bureau of the Budget, 1967, as amended and supplemented, under the category "Division D—Manufacturing" and such other classes of significant waste producers as, by regulation, the Administrator deems appropriate.

(19) The term "pollution" means the man-made or man-induced alteration of the chemical, physical, biological, and radiological integrity of water.

#### **§ 1365 [505]. Citizen suits—Authorization: jurisdiction**

(a) Except as provided in subsection (b) of this section, any citizen may commence a civil action on his own behalf—

(1) against any person (including (i) the United States, and (ii) any other governmental instrumental-

ity or agency to the extent permitted by the eleventh amendment to the Constitution) who is alleged to be in violation of (A) an effluent standard or limitation under this chapter or (B) an order issued by the Administrator or a State with respect to such a standard or limitation, or

(2) against the Administrator where there is alleged a failure of the Administrator to perform any act or duty under this chapter which is not discretionary with the Administrator.

The district courts shall have jurisdiction, without regard to the amount in controversy or the citizenship of the parties, to enforce such an effluent standard or limitation, or such an order, or to order the Administrator to perform such act or duty, as the case may be, and to apply any appropriate civil penalties under section 1319(d) of this title.

#### **Notice**

(b) No action may be commenced—

(1) under subsection (a) (1) of this section—

(A) prior to sixty days after the plaintiff has given notice of the alleged violation (i) to the Administrator, (ii) to the State in which the alleged violation occurs, and (iii) to any alleged violator of the standard, limitation, or order, or

(B) if the Administrator or State has commenced and is diligently prosecuting a civil or criminal action in a court of the United States, or a State to require compliance with the standard, limitation, or order, but in any such action in a court of the United States any citizen may intervene as a matter of right.

(2) under subsection (a) (2) of this section prior to sixty days after the plaintiff has given notice of such action to the Administrator,

except that such action may be brought immediately after such notification in the case of an action under this section respecting a violation of sections 1316 and 1317(a) of this title. Notice under this subsection shall be given in such manner as the Administrator shall prescribe by regulation.

#### **Venue; intervention by Administrator**

(c) (1) Any action respecting a violation by a discharge source of an effluent standard or limitation or an order respecting such standard or limitation may be brought under this section only in the judicial district in which such source is located.

(2) In such action under this section, the Administrator, if not a party, may intervene as a matter of right.

#### **Litigation costs**

(d) The court, in issuing any final order in any action brought pursuant to this section, may award costs of litigation (including reasonable attorney and expert witness fees) to any party, whenever the court determines such award is appropriate. The court may, if a temporary restraining order or preliminary injunction is sought, require the filing of a bond or equivalent security in accordance with the Federal Rules of Civil Procedure.

#### **Statutory or common law rights not restricted**

(e) Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any effluent standard or limitation or to seek any other relief (including relief against the Administrator or a State agency).

#### **Effluent standard or limitation**

(f) For purposes of this section, the term "effluent standard or limitation under this chapter" means (1) effective July 1, 1973, an unlawful act under subsection (a) of section 1311 of this title; (2) an effluent limitation or other limitation under section 1311 or 1312 of this title; (3) standard of performance under section 1316 of this title; (4) prohibition, effluent standard or pretreatment standards under section 1317 of this title; (5) certification under



section 1341 of this title; or (6) a permit or condition thereof issued under section 1342 of this title, which is in effect under this chapter (including a requirement applicable by reason of section 1323 of this title).

### **Citizen**

(g) For the purposes of this section the term "citizen" means a person or persons having an interest which is or may be adversely affected.

### **Civil action by State Governors**

(h) A Governor of a State may commence a civil action under subsection (a) of this section, without regard to the limitations of subsection (b) of this section, against the Administrator where there is alleged a failure of the Administrator to enforce an effluent standard or limitation under this chapter the violation of which is occurring in another State and is causing an adverse effect on the public health or welfare in his State, or is causing a violation of any water quality requirement in his State.

### **§ 1369 [509]. Administrative procedure and judicial review**

(a) (1) For purposes of obtaining information under section 1315 of this title, or carrying out section 1367(e) of this title, the Administrator may issue subpoenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for effluent data, upon a showing satisfactory to the Administrator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of Title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or author-

ized representatives of the United States concerned with carrying out this chapter, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpoena served upon any person under this subsection, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator, to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(2) The district courts of the United States are authorized, upon application by the Administrator, to issue subpoenas for attendance and testimony of witnesses and the production of relevant papers, books, and documents, for purposes of obtaining information under sections 1314(b) and (c) of this title. Any papers, books, documents, or other information or part thereof, obtained by reason of such a subpoena shall be subject to the same requirements as are provided in paragraph (1) of this subsection.

(b) (1) Review of the Administrator's action (A) in promulgating any standard of performance under section 1316 of this title, (B) in making any determination pursuant to section 1316(b) (1) (C) of this title, (C) in promulgating any effluent standard, prohibition, or pretreatment standard under section 1317 of this title, (D) in making any determination as to a State permit program submitted under section 1342(b) of this title, (E) in approving or promulgating any effluent limitation or other limitation under section 1311, 1312, or 1316 of this title, and (F) in issuing or denying any permit under section 1342 of this title, may be had by any interested person in the Circuit Court of Appeals of the United States for the Federal judicial district in which such person resides or



transacts such business upon application by such person. Any such application shall be made within ninety days from the date of such determination, approval, promulgation, issuance or denial, or after such date only if such application is based solely on grounds which arose after such ninetieth day.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) of this subsection shall not be subject to judicial review in any civil or criminal proceeding for enforcement.

(c) In any judicial proceeding brought under subsection (b) of this section in which review is sought of a determination under this chapter required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

## APPENDIX B

### Regulations Involved

#### "EFFLUENT LIMITATIONS GUIDELINES" FOR THE INORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

The rulemaking order promulgating the foregoing regulations is found at 39 *Fed. Reg.* 9611-9639 (March 12, 1974), Administrative Record, 5395-5419. The preamble of the order and the text of the regulations for the eleven challenged subcategories are as follows:

#### Title 40—Protection of Environment

#### CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

#### Subchapter N—Effluent Guidelines and Standards

#### PART 415—INORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

On October 11, 1973 notice was published in the *FEDERAL REGISTER*, (38 FR 28174), that the Environmental Protection Agency (EPA or Agency) was proposing effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the aluminum chloride production subcategory, aluminum sulfate production subcategory, calcium carbide production subcategory, calcium chloride production subcategory, calcium oxide and hydroxide production subcategory, chlorine and sodium or potassium hydroxide production subcategory, hydrochloric acid production subcategory, hydrofluoric acid production subcategory, hydrogen peroxide production subcategory, nitric acid production subcategory, potassium metal production subcategory, potassium dichromate production subcategory, potassium sulfate production subcategory, sodium bicarbonate production subcategory, sodium carbonate production subcategory, sodium chloride production subcategory, sodium dichromate and sodium sulfate production subcategory, sodium metal production subcategory, sodium silicate pro-

duction subcategory, sodium sulfite production subcategory, sulfuric acid production subcategory, and titanium dioxide production subcategory of the inorganic chemicals manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the inorganic chemicals manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 415. This final rulemaking is promulgated pursuant to sections 301, 304(b) and (c), 306(b) and (c) and 307(c) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314(b) and (c), 1316(b) and (c) and 1317(c); 86 Stat. 816 et seq.; Pub. L. 92-500. Regulations regarding cooling water intake structures for all categories of point sources under section 316(b) of the Act will be promulgated in 40 CFR Part 402.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the *FEDERAL REGISTER*, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the aluminum chloride production subcategory, aluminum sulfate production subcategory, calcium carbide production subcategory, calcium chloride production subcategory, calcium oxide and hydroxide production subcategory, chlorine and sodium or potassium hydroxide production subcategory, hydrochloric acid production subcategory, hydrofluoric

acid production subcategory, hydrogen peroxide production subcategory, nitric acid production subcategory, potassium metal production subcategory, potassium dichromate production subcategory, potassium sulfate production subcategory, sodium bicarbonate production subcategory, sodium carbonate production subcategory, sodium chloride production subcategory, sodium dichromate and sodium sulfate production subcategory, sodium metal production subcategory, sodium silicate production subcategory, sodium sulfite production subcategory, sulfuric acid production subcategory, and titanium dioxide production subcategory. In addition, the regulations as proposed were supported by two other documents; (1) The document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Performance Standards for the major inorganic products Segment of the Inorganic Chemicals Manufacturing Point Source Category" (August 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines, Inorganic Chemicals, Alkali and Chlorine Industries (Major Products)" (August, 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows. The regulation as promulgated contains some significant departures from the proposed regulation. The following discussion outlines the reasons why these changes were made and why other suggested changes were not made.



### Summary of Major Comments

The following responded to the request for written comments which was contained in the preamble to the proposed regulation: Airco Carbide, Allied Chemical Corporation, American Cyanamid Company, American Smelting & Refining Company, Atomic Energy Commission, BASF Wyandotte Corporation, B. F. Goodrich Chemical Company, California—State Water Resources Control Board, Chemetron Corporation, County Sanitation Districts of L.A. County, Detrex Chemical Industries, Diamond Shamrock Chemical Company, Dow Chemicals USA, E. I. DuPont de Nemours & Company, EPA Region VIII, Ferroalloys Association, Georgia-Pacific Corporation, Great Salt Lake Minerals & Chemicals Corporation, Hooker-Industrial Chemical Division, Kaiser Aluminum & Chemical Corporation, Kerr-McGee Chemical Corporation, Leslie Salt Company, Lowry Associates, Manufacturing Chemists Association, Michigan Chemical Corporation, Midwest Carbide Corporation, Monsanto, National Paint & Coating Association, NL Industries, Titanium Pigments Operations, N.J. Zinc Company (Bethlehem, Pa.), N.J. Zinc Company (Gloucester, N.J.), Olin Chemicals, Pacific Carbide & Alloys Company, Penwalt Corporation, Philadelphia Quartz Company, Pittsburgh Plate Glass Industries, Salt Institute, San Francisco Bay Conservation & Development Commission, SMC Glidden-Durkee, State of Michigan—Department of Natural Resources, State of N.Y. Department of Environmental Conservation, State of Utah—Attorney General, State of Utah—Department of Natural Resources, State of Utah—Department of Social Services, Stauffer Chemical Company, The Chlorine Institute, Inc., Texas Chemical; Union Carbide Corporation, U.S. Department of Commerce, U.S. Department of the Interior, Vulcan Materials Company, Water Pollution Control Federation and Western Salt Company. The following is a summary of the significant comments and the Agency's response to those comments.

(1) Because of wide variations in plant age and size, product mix, manufacturing processes, and raw materials,

the guidelines should be expressed as ranges. Many commenters recommended adoption of ESWQIAC's proposed methodology.

The approach taken in developing effluent limitations guidelines standards of performance for the inorganic chemicals manufacturing industry was to examine all variables and segment the industry into workable subcategories consistent with these variations. Twenty-two subcategories have been established based on the chemical product manufactured. In cases where two dissimilar processes are used to manufacture the same product, separate limitations have been established within the subcategory. Thus, ranges are provided for, as are other factors, by segmenting the inorganic chemicals manufacturing point source category into discrete subcategories, each with its own limitation. ESWQIAC's proposal is under evaluation as a contribution toward future refinements on guidelines for some industries. The committee has indicated that their proposed methodology could not be developed in sufficient time to be available for the current phase of guideline promulgation, which is proceeding according to a court-ordered schedule. Its present state of development does not provide sufficient evidence to warrant the Agency's delaying issuance of any standard in hopes that an alternative approach might be preferable.

(2) Many commenters stated that a guideline requiring "no discharge of process waste water pollutants" is ambiguous. Also, they stated that the definition of "pollutant" should clearly exclude innocuous dissolved solids, such as chlorides and sulfates.

The terms "process waste water", "process waste water pollutants", and "discharge of pollutant(s)" are clearly defined in 40 CFR Part 401. Reference to these definitions is included whenever these terms are used. "No" discharge of process waste water pollutants to navigable waters means that process waste water pollutants may not be discharged to navigable water in quantities greater than



the detectable limits using the test methods presented in 40 CFR 136 "Guidelines establishing test procedures for the analysis of pollutants" published in the *FEDERAL REGISTER*, October 16, 1973. The term "pollutant(s)" as defined in 40 CFR Part 401 includes all dissolved materials, such as chlorides and sulfate. Where a discharge of process waste water pollutants has been allowed for chemical subcategories, it was concluded that only the selected pollutant parameters could be economically limited by technology-based standards. In some cases, however, where total recycle, sale, recovery, or reuse of process waste water is technically and economically feasible, the discharge of all process waste water pollutants has been limited.

(3) Some comments stated that the proposed pretreatment standards preclude industrial use of public treatment works.

The methodology for applying effluent limitation guidelines to discharges from point sources to municipal treatment systems has been given further consideration by the Agency. The pollutants present in the waste water generated by the manufacture of inorganic chemicals have been identified. Discharge of these pollutants to municipal treatment systems is allowed in limited quantities so as to ensure adequate treatment and to prevent interference with the performance of such a system. These pretreatment standards for existing point sources are being proposed as an amendment to 40 CFR Part 415.

(4) Many commenters stated that the cost estimates were low and did not include costs for auxiliary equipment, land acquisitions, sludge disposal, or research and development work. Additionally, it was said that the impact of these costs has been understated.

Cost information was obtained directly from industry during plant visits, from engineering firms and equipment suppliers, and from available literature. This data has been obtained from the best sources available to the Agency

and is believed to be representative of actual capital and operating costs.

In cases where commenters have supplied additional cost data, satisfactorily documented and detailed, to indicate that the initial estimates are low, the figures have been revised and the proposed guidelines altered accordingly. Consideration has also been given to comments questioning the magnitude of the projected economic impact. Specific comments are summarized for the chemical subcategory to which they apply.

(5) Some commenters questioned the use of a factor of two to relate daily maximums to 30-day averages.

Extensive, long-term data is not available for each of the 22 chemical subcategories. It was necessary, therefore, to rely on data from other segments of the inorganic chemicals industry, as well as data from other industrial categories. Based on this information and using good engineering judgement on the performance reliability of recommended treatment systems, a factor of two appears generous.

(6) Many commenters said that limitations should be clearly defined as representing the net pollutant contributions as a result of the specific manufacturing process being limited. They question whether allowances should be made for pollutants present in the intake water.

If not otherwise specified, the effluent limitation numbers in this regulation will be applied as absolute discharge limitations. The use of such absolute limitations is generally appropriate since the concentration of a pollutant remaining after the application of a given treatment technology is relatively independent of minor variations in the pollutant concentration in the waste or the source of the pollutant. EPA intends to amend the NPDES regulations to take into account, when appropriate, pollutants already existing in the stream, so that in certain cases an effluent limitation may be adjusted to take into account pollutants

entering with a discharger's supply providing the water is withdrawn from the same source into which it is discharged. If the source is other than the receiving waterbody, the effluent standards will be applied as absolute limitations without adjustment.

(7) Aluminum chloride. Some commenters said that a market may not exist for the scrubber water (a 28 percent aluminum chloride solution) and that costs to purify and concentrate the solution may be prohibitive. They recommend a discharge allowance be made for the scrubber waste water effluent.

Only "yellow grade" aluminum chloride, made with an excess of chlorine, requires wet scrubbing techniques on the gaseous waste stream. Two plants, representing approximately 40 percent of the total annual production of aluminum chloride, currently are able to sell their dilute scrubber solution. A re-evaluation of the costs to concentrate the dilute scrubber solution indicates that costs for concentration are approximately 0.4 percent of the selling price of aluminum chloride.

(8) Aluminum sulfate. Some commenters stated that recycle of leaks and spills may contaminate high purity grades of product. Also, aluminum clays may be used as the raw material in place of bauxite which significantly effects the raw waste load. The commenters said that area for ponds may not be available at all locations. Also, net rainfall will preclude the use of ponds. When a dry product is produced, some commenters questioned whether recycling water increases the evaporative load on equipment, increasing energy requirements.

The wastes generated in refining bauxite to produce on iron-free hydrated alumina material are not considered to be process waste water pollutants resulting from the manufacture of iron-free aluminum sulfate. Process waste water pollutants generated by the refinement of bauxite ore are subject to the effluent guidelines to be promulgated in 40 CFR 421. If these wastes are segregated from leaks and

spills, contamination preventing recycle is not a problem. Other raw materials than bauxite, including clays and aluminum hydrate, generate greater quantities of raw waste because of impurities, but the waste water constituents are similar and the process is the same. Thus, although the use of different raw materials affects the raw waste load, it does not preclude the use of settling, clarification, and reuse of process waste water as recommended. The guidelines do not require plants to use large ponds to achieve no discharge of process waste water pollutants. Clarifiers may be used in locations where land is not available for funding. The costs for clarifiers are similar to the costs for ponding. A provision has been established to allow discharge from impoundments under some conditions of high rainfall.

(9) Calcium carbide. Calcium carbide manufacturers stated that it should be considered a ferroalloy because: (a) air standards consider it a ferroalloy; (b) all plants are members of Ferroalloy Assoc.; (c) it is usually made in complexes with ferroalloys; (d) it uses similar processes in similar ovens. Commentors also expressed concern that the only two plants achieving the proposed guidelines are unique, using an uncovered furnace. Other plants recover gaseous carbon monoxide and must scrub the gas to remove impurities. Because of high temperatures dry bag collection of dust is not feasible.

• A portion of calcium carbide is produced in both the ferroalloy industry and the inorganic chemicals industry. The regulation presented herein is applicable to discharges from calcium carbide production in open furnaces. Plants employing this manufacturing process are not located in ferroalloy complexes. Effluent limitations for waste water discharges from calcium carbide production in covered furnaces will be established in a forthcoming regulation as part of the ferroalloy industry. This distinction will accommodate differences in process waste water from plants using open furnaces and those using covered furnaces.



(10) Calcium oxide and calcium hydroxide. Many commenters mentioned that costs for converting to a dry bag house from a wet scrubber system are economically unjustified. They also state that reuse of the water is not possible because of impurities.

The guidelines do not require conversion to a dry air pollution abatement system. An alternate treatment system consists of settling suspended solids and total recycle of the supernatant to the scrubbing system. At least one lime plant currently employs this treatment system to achieve the guidelines.

(11) Chlorine. Some commenters pointed out the fact that the proposed mercury limit for the mercury cell process is not achievable using the best practicable technology and that the location of mercury monitoring should be clearly specified as leaving the mercury treatment facility. They further state that no discharge of process waste water pollutants is not demonstrated in plants using either the diaphragm or mercury cell process and appears to be technically impossible. It should definitely not be required of new sources. Some commenters said that the lead limitation appears to be unachievable. They state that there is no rationale for having a more stringent TSS limitation on diaphragm cell plants than mercury cell plants.

While three plants are currently meeting the proposed guidelines, supplied data indicates that the proposed mercury limitation is not being achieved in certain plants employing the best practicable control technology currently available. The standard has been revised, considering the effluent reduction achieved by a greater number of plants. The limitation is intended to indicate mercury levels in the waste stream from the mercury treatment facility because mercury residuals may not be controllable. This is clearly stated in 40 CFR 415.61. The presence of lead in the effluent from diaphragm cell plants results from the development of cracks around protective resin seals which encase underlying lead mountings. Currently, one-third of the

industry is using anodes which do not require lead mountings. Industry representatives state that another one-third are seriously considering conversion. The lead limitation is the average value discharged from three plants which have not converted to lead-free anodes. The new sources performance standards of no discharge of process waste water pollutants is not presently demonstrated, and research and development may require several years. Therefore, new sources will be required to meet the best performance demonstrated in exemplary plants. The suspended solids limitation has been reevaluated for discharges from the diaphragm cell process.

(12) Many commenters stated that a provision should be established to allow for the discharge of leaks, spills, and washdown waste waters.

Spills, leaks, and washdown waste waters may be minimized or eliminated by good housekeeping, operation, and maintenance. The process waste water should be segregated from other waste streams and may be collected and fed back into the manufacturing process.

(13) Sulfuric acid. Some commenters stated that single adsorption plants can not eliminate their scrubber effluent, leaks and spills, or start-up and shut-down waste waters.

Good housekeeping, operation and equipment maintenance will minimize the volume of waste waters to a point where reuse or sale of the recovered acid product is feasible.

(14) Hydrogen peroxide—organic process. Some commenters said that total process waste water recycle is not possible because of organic impurities present in the waste streams.

The technology to achieve no discharge of process waste water pollutants is considered to be best available and best demonstrated technology. Organic solvents of the type used in the manufacturing process can be removed by skimming and carbon adsorption treatment. Best prac-

ticable technology consists of oil separation and clarification, treatments presently used in the industry to attain the required pollutant reductions.

(15) Potassium dichromate. Some commenters mentioned that replacement of barometric condensers with noncontact heat exchangers has not been demonstrated and should not be required by 1977. They also questioned whether reuse of sodium dichromate is possible in all plants.

Recycle of unreacted sodium dichromate is technically possible in all plants if segregation of waste streams and good housekeeping is practiced. Conversion to noncontact heat exchangers is being accomplished in the potassium dichromate industry. Noncontact heat exchangers are widely used and have been a proven technology in the chemical industry for many years.

(16) Sodium. Commenters stated that TSS removals to less than 50 mg/l have not been demonstrated in waste streams resulting from sodium manufacturing.

The technologies required to achieve the proposed TSS limitation are widely demonstrated. These alternatives include sedimentation, flocculation, and clarification. The suspended solids are primarily the decomposition products of the cells and alkaline salts.

(17) Sodium sulfite. Several comments stated that no discharge of process waste water pollutants is based upon recovery of sodium sulfate which is not possible because of a limited market. Also, wastes contain impurities other than sulfates. Returning these impurities to the process is not possible. Some commenters said that the COD limitation is confusing.

The COD limitation is in the units recommended in Standard Methods for Waste Water Analysis. The guidelines do not require the sale of sodium sulfate. Satisfactory land disposal of the unused sodium sulfate would cost approximately two percent of the selling price of sodium

sulfite. The waste waters may be segregated, treated and recycled to the process.

(18) Sodium carbonate. Some commenters stated that gravity sedimentation will not reduce the suspended solids concentration to the recommended 25 mg/l concentration. They say particles are very fine and a filter precoat is required. A small suspended solids reduction is not justified by the cost. Various manufacturers recommend using a suspended solids concentration of 50 mg/l as it is compatible with actual settling pond performance and is a more "realistic and achievable level".

The treatment technologies required to attain the effluent pollutant reduction proposed are conventional and proven treatment systems. Treatment alternatives include sedimentation basins, flocculators and clarifiers.

(19) Sodium dichromate. Some commenters mentioned that technology has not been demonstrated to achieve no discharge of process waste water pollutants and that it is technically impossible. The 1977 standard is based on a plant which is only two years old. Commenters question whether existing plants can economically achieve its effluent quality.

The control technology used at the exemplary plant consists of leak and spill containment and pickle liquor treatment for chromium reduction followed by sedimentation to achieve the proposed guidelines. Another plant uses conventional sodium hydrosulfide treatment and lime to attain the proposed chromium levels. The proposed effluent limitations can be attained in existing facilities. The proposed new source performance standards were based on evaporation to attain no discharge of process waste water pollutants. Considering nonwater environmental aspects, the new source performance standards have been revised to require good water conservation and best practicable technology.

(20) Sodium chloride. Commenters stated that most plants return unused bitterns to the source. They feel that



discharges do not threaten aquatic life or contribute to water pollution and that recovery of potassium and magnesium salts is not economical.

Although some plants may have ample land to store waste bitterns, this treatment is not universally applicable. Alternative means to achieve no discharge of process waste water pollutants are economically prohibitive. If no pollutants are added to the waste bitterns, return of the unused salts to the source is a reasonable limitation for technology-based standards.

(21) Sodium Silicate. Some comments stated that sodium hydroxide, sodium sulfate, and silica should not be considered pollutants. Because of their natural occurrence in most waters, costs to achieve no discharge of these compounds are not justified. They further state that recycle is not possible because of turbidity problems and evaporation ponds are not universally applicable.

A reexamination of initial data and consideration of substantial comments indicate that cost of treatment to achieve no discharge of process waste water pollutants may not be justified for a 1977 standard. Best practicable technology has been redefined as a well-designed and operated settling basin.

(22) Titanium dioxide. Several commenters stated that the costs to achieve the proposed limitations place a greater financial burden on titanium dioxide producers using the sulfate process than those using the chloride process. They say that this economic inequity may force some sulfate process plants to close down because of their inability to recover treatment costs while maintaining competitive prices. It was stated that polishing filtration is necessary to achieve the suspended solids limitations for discharges from the sulfate process. The commenters said that some of the pollutant parameters selected as the subject of effluent guidelines should be eliminated. Industry further stated that the flow basis of 100,000 l/kg for the sulfate process is not achievable. Several commenters question

the use of "dissolved iron" as the means to limit iron. They feel "total iron" should be used so as to include the total quantities of iron being discharged regardless of its state.

(i) Chloride Process. A re-evaluation of the pollutant parameters selected indicates that effluent standards for metals other than iron are not necessary requirements to establish compliance with best practicable technology currently available. While monitoring aluminum, lead, etc., provides for stricter effluent control, these metals are present only in small quantities relative to the iron content. They are removed to acceptable levels if the iron limitation is maintained. The guidelines represent the quantities of pollutants which may be discharged based on treatment technology. The recommended treatment includes iron precipitation and clarification. The efficiency of this treatment may be best determined by measuring the total iron content of the effluent. Data from this type of treatment indicates that a effluent containing 4 mg/l total iron can be achieved.

(ii) Sulfate process. Inclusion of effluent limitations for suspended solids, pH, and iron are sufficient to ensure compliance with the effluent reduction attainable through the application of the required levels of treatment technology. Other waste water constituents appear in relatively minor quantities and are adequately removed when the iron limitation is achieved. The rationale presented above for using the parameter "total iron" is applicable to the sulfate process also. The process waste water flow basis of 100,000 l/kg has been re-examined. Based on initial data and comments received this basis has been revised. A total process waste water flow of 210,000 l/kg of product is achievable using recycle of scrubber water. Detailed data have been supplied subsequent to the publication of the proposed regulations. These data indicate the costs to reduce the TSS concentration to 25 mg/l are greater than initially estimated. Considering the nature of the solids and the expected performance from the recommended

treatment system a concentration basis of 50 mg/l is reasonable for a 1977 standard.

(23) Some commenters said that provisions should be established to allow for discharges from treatment or holding ponds in the event of catastrophic rain storms.

For chemicals subcategories which have a limitation of no discharge of process waste water pollutants to navigable waters and for which ponds may be part of the treatment system, an allowance has been provided to permit a discharge of process waste water from a plant located in an area where rainfall exceeds the evaporation rate or in the event of a catastrophic rainfall.

#### **Revision of the Proposed Regulation Prior to Promulgation**

As a result of public comment and continuing review and evaluation of the proposed regulation by EPA, the following changes have been made in the regulation.

(1) The applicability of the proposed regulations for calcium carbide production has been amended to include only calcium carbide production in uncovered furnaces.

(2) The effluent limitation guidelines for sodium chloride production have been amended to allow for the return of unused salt wastes to the body of water from which the brine solution was initially obtained. No additional pollutants may be added to the waste salt solution prior to discharge.

(3) The effluent limitation for sodium silicate production based on the application of best practicable technology currently available has been revised to permit a discharge of small quantities of suspended solids.

(4) The new source performance standards for the sodium dichromate production subcategory and the sodium sulfite production subcategory have been revised to require good water conservation and implementation of the best practicable technology currently available.

(5) The new source performance standards for chlorine production have also been amended to allow for a waste water discharge from both diaphragm and mercury cell plants.

(6) The mercury limitation has been revised for mercury cell chlorine plants based on the effluent reduction attainable by the best practicable technology currently available.

(7) The effluent limitation of suspended solids has been revised for diaphragm cell chlorine plants.

(8) The effluent limitations for titanium dioxide production have been changed to exclude limitations on trace elements. The parameter "total dissolved iron" has been amended to "total iron" and the guideline has been altered accordingly.

(9) The effluent limitations for titanium dioxide production by the sulfate process have been changed. The flow basis has been increased resulting in less stringent limitations on iron and suspended solids.

(10) Minor adjustments have been made to reflect the fact that an increased number of definitions and analytical methods have been included in 40 CFR 401 and are incorporated by reference where applicable.

(11) Section 304(b)(1)(B) of the Act provides for "guidelines" to implement the uniform national standards of section 301(b)(1)(A). Thus Congress recognized that some flexibility was necessary in order to take into account the complexity of the industrial world with respect to the practicability of pollution control technology. In conformity with the Congressional intent and in recognition of the possible failure of these regulations to account for all factors bearing on the practicability of control technology, it was concluded that some provision was needed to authorize flexibility in the strict application of the limitations contained in the regulation where required by special circumstances applicable to individual dischargers. Accord-



ingly, a provision allowing flexibility in the application of the limitations representing best practicable control technology currently available has been added to each subpart, to account for special circumstances that may not have been adequately accounted for when these regulations were developed.

(12) An allowance has been provided to permit the discharge of process waste water pollutants from plants located in areas where precipitation exceeds evaporation. An allowance has also been provided for discharge in the event of a catastrophic rainfall. These allowances are applicable only to chemical subcategories which may utilize ponds to achieve no discharge of process waste water pollutants.

#### **Economic Impact**

The changes that were made to the proposed regulations for the inorganic chemicals manufacturing category do not substantially affect the initial economic analysis. The changes detailed above concern new sources and reflect a re-evaluation of the efficiency of various treatment systems. These revisions, however, do not affect the conclusions of the economic impact study.

#### **Cost-Benefit Analysis**

The detrimental effects of the constituents of waste waters now discharged by point sources within the major inorganic products segment of the inorganic chemicals manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the major inorganic products segment of the Inorganic Chemicals Manufacturing Point Source Category" (August 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's waterways. Nevertheless, as indicated in Section VI, the pollutants discharged have

substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in Section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines Inorganic Chemicals, Alkali and Chlorine Industries (Major Products)" (August 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the inorganic chemicals manufacturing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

#### **Publication of Information on Processes, Procedures, or Operating Methods Which Result in the Elimination or Reduction of the Discharge of Pollutants**

In conformance with the requirements of Section 304 (c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the MAJOR INORGANIC PRODUCTS Segment of the Inorganic Chemicals Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D. C. 20401 for a nominal fee.

### Final Rulemaking

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 415, Inorganic Chemicals Manufacturing Point Source Category, to read as set forth below. This final regulation is promulgated as set forth below and shall be effective on May 13, 1974.

Dated: March 4, 1974.

JOHN QUARLES,  
Acting Administrator.

#### Subpart A—Aluminum Chloride Production Subcategory

Sec.

- 415.10 Applicability; description of the aluminum chloride production subcategory.
- 415.11 Specialized definitions.
- 415.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.14 [Reserved]
- 415.15 Standards of performance for new sources.
- 415.16 Pretreatment standards for new sources.

#### Subpart B—Aluminum Sulfate Production Subcategory

- 415.20 Applicability; description of the aluminum sulfate production subcategory.
- 415.21 Specialized definitions.
- 415.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

Sec.

- 415.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.24 [Reserved]
- 415.25 Standards of performance for new sources.
- 415.26 Pretreatment standards for new sources.

#### Subpart C—Calcium Carbide Production Subcategory

- 415.30 Applicability; description of the calcium carbide production subcategory.
- 415.31 Specialized definitions.
- 415.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.34 [Reserved]
- 415.35 Standards of performance for new sources.
- 415.36 Pretreatment standards for new sources.

#### Subpart D—Calcium Chloride Production Subcategory

- 415.40 Applicability; description of the calcium chloride production subcategory.
- 415.41 Specialized definitions.
- 415.42 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.



## Sec.

- 415.43 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.44 [Reserved]
- 415.45 Standards of performance for new sources.
- 415.46 Pretreatment standards for new sources.

**Subpart E—Calcium Oxide and Calcium Hydroxide Production Subcategory**

- 415.50 Applicability; description of the calcium oxide and calcium hydroxide production subcategory.
- 415.51 Specialized definitions.
- 415.52 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.53 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.54 [Reserved]
- 415.55 Standards of performance for new sources.
- 415.56 Pretreatment standards for new sources.

**Subpart F—Chlorine and Sodium or Potassium Hydroxide Production Subcategory**

- 415.60 Applicability; description of the chlorine and sodium or potassium hydroxide production subcategory.
- 415.61 Specialized definitions.
- 415.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

## Sec.

- 415.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
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- 415.65 Standards of performance for new sources.
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- 415.70 Applicability; description of the hydrochloric acid production subcategory.
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- 415.80 Applicability; description of the hydrofluoric acid production subcategory.
- 415.81 Specialized definitions.
- 415.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

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- 415.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.84 [Reserved]
- 415.85 Standards of performance for new sources.
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- 415.90 Applicability; description of the hydrogen peroxide production subcategory.
- 415.91 Specialized definitions.
- 415.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.94 [Reserved]
- 415.95 Standards of performance for new sources.
- 415.96 Pretreatment standards for new sources.

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- 415.100 Applicability; description of the nitric acid production subcategory.
- 415.101 Specialized definitions.
- 415.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

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- 415.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.104 [Reserved]
- 415.105 Standards of performance for new sources.
- 415.106 Pretreatment standards for new sources.

**Subpart K—Potassium Metal Production Subcategory**

- 415.110 Applicability; description of the potassium metal production subcategory.
- 415.111 Specialized definitions.
- 415.112 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.113 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.114 [Reserved]
- 415.115 Standards of performance for new sources.
- 415.116 Pretreatment standards for new sources.

**Subpart L—Potassium Dichromate Production Subcategory**

- 415.120 Applicability; description of the potassium dichromate production subcategory.
- 415.121 Specialized definitions.
- 415.122 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.



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- 415.123 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.124 [Reserved]
- 415.125 Standards of performance for new sources.
- 415.126 Pretreatment standards for new sources.

**Subpart M—Potassium Sulfate Production Subcategory**

- 415.130 Applicability; description of the potassium sulfate production subcategory.
- 415.131 Specialized definitions.
- 415.132 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.133 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.134 [Reserved]
- 415.135 Standards of performance for new sources.
- 415.136 Pretreatment standards for new sources.

**Subpart N—Sodium Bicarbonate Production Subcategory**

- 415.140 Applicability; description of the sodium bicarbonate production subcategory.
- 415.141 Specialized definitions.
- 415.142 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

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- 415.143 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.144 [Reserved]
- 415.145 Standards of performance for new sources.
- 415.146 Pretreatment standards for new sources.

**Subpart O—Sodium Carbonate Production Subcategory**

- 415.150 Applicability; description of the sodium carbonate production subcategory.
- 415.151 Specialized definitions.
- 415.152 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.153 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.154 [Reserved]
- 415.155 Standards of performance for new sources.
- 415.156 Pretreatment standards for new sources.

**Subpart P—Sodium Chloride Production Subcategory**

- 415.160 Applicability; description of the sodium chloride production subcategory.
- 415.161 Specialized definitions.
- 415.162 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.163 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

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- 415.164 [Reserved]
- 415.165 Standards of performance for new sources.
- 415.166 Pretreatment standards for new sources.

**Subpart Q—Sodium Dichromate and Sodium Sulfate  
Production Subcategory**

- 415.170 Applicability; description of the sodium dichromate and sodium sulfate production subcategory.
- 415.171 Specialized definitions.
- 415.172 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.173 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.174 [Reserved]
- 415.175 Standards of performance for new sources.
- 415.176 Pretreatment standards for new sources.

**Subpart R—Sodium Metal Production Subcategory**

- 415.180 Applicability; description of the sodium metal production subcategory.
- 415.181 Specialized definitions.
- 415.182 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.183 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.184 [Reserved]

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- 415.185 Standards of performance for new sources.
- 415.186 Pretreatment standards for new sources.

**Subpart S—Sodium Silicate Production Subcategory**

- 415.190 Applicability; description of the sodium silicate production subcategory.
- 415.191 Specialized definitions.
- 415.192 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.193 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.194 [Reserved]
- 415.195 Standards of performance for new sources.
- 415.196 Pretreatment standards for new sources.

**Subpart T—Sodium Sulfite Production Subcategory**

- 415.200 Applicability; description of the sodium sulfite production subcategory.
- 415.201 Specialized definitions.
- 415.202 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.203 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.204 [Reserved]
- 415.205 Standards of performance for new sources.
- 415.206 Pretreatment standards for new sources.



**Subpart U—Sulfuric Acid Production Subcategory****Sec.**

- 415.210 Applicability; description of the sulfuric acid production subcategory.
- 415.211 Specialized definitions.
- 415.212 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.213 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.214 [Reserved]
- 415.215 Standards of performance for new sources.
- 415.216 Pretreatment standards for new sources.

**Subpart V—Titanium Dioxide Production Subcategory**

- 415.220 Applicability; description of the titanium dioxide production subcategory.
- 415.221 Specialized definitions.
- 415.222 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
- 415.223 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
- 415.224 [Reserved]
- 415.225 Standards of performance for new sources.
- 415.226 Pretreatment standards for new sources.

**AUTHORITY:** Secs. 301, 304(b) and (c), 306(b) and (c), 307(c), Pub. L. 92-500; 86 Stat. 816 et seq.; (33 U.S.C. 1251, 1311, 1314(b) and (c), 1316(b) and (c), 1317(c)).

\* \* \* \* \*

**SUBPART F—CHLORINE AND SODIUM OR POTASSIUM HYDROXIDE PRODUCTION SUBCATEGORY****§ 415.60 Applicability: description of the chlorine and sodium or potassium hydroxide production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of chlorine and sodium or potassium hydroxide by the diaphragm cell process and by the mercury cell process.

**§ 415.61 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "product" shall mean chlorine.

(c) The term "mercury" shall mean the total mercury present in the process waste water stream exiting the mercury treatment system.

(d) The term "lead" shall mean total lead.

**§ 415.62 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology avail-

able, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in this Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from chlorine and potassium or sodium hydroxide manufacture by the mercury cell process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
TSS.....	0.64	0.32
Mercury.....	.00028	.00014
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS.....	0.64	0.32
Mercury.....	.00028	.00014
pH.....	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from chlorine and sodium or potassium hydroxide manufacture by the diaphragm cell process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
TSS	0.64	0.32
Lead	.005	.0025
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS	0.64	0.32
Lead	.005	.0025
pH	Within the range 6.0 to 9.0.	



**§ 415.63 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from chlorine and sodium or potassium hydroxide manufacture by the mercury cell process:

(1) Subject to the provisions of paragraph (a)(2) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(2) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from chlorine and sodium or potassium hydroxide manufacture by the diaphragm cell process: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.64 [Reserved]**

**§ 415.65 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart:

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from chlorine and sodium or potassium hydroxide manufacture by the mercury cell process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
TSS.....	0.64	0.32
Mercury.....	.00014	.00007
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS.....	0.64	0.32
Mercury.....	.00014	.00007
pH.....	Within the range 6.0 to 9.0.	

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from chlorine and sodium or potassium hydroxide manufacture by the diaphragm cell process:

sium hydroxide manufacture by the diaphragm cell process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
TSS.....	0.64	0.32
Lead.....	.00008	.00004
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS.....	0.64	0.32
Lead.....	.00008	.00004
pH.....	Within the range 6.0 to 9.0.	

#### § 415.66 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the chlorine and sodium or potassium hydroxide production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.65; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to re-

move a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

### SUBPART G—HYDROCHLORIC ACID PRODUCTION SUBCATEGORY

#### § 415.70 Applicability; description of the hydrochloric acid production subcategory.

The provisions of this subpart are applicable to discharges resulting from the production of hydrochloric acid and by direct reaction of chlorine and hydrogen.

#### § 415.71 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

#### § 415.72 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES per-



mits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.73 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.74 [Reserved]**

**§ 415.75 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.76 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the hydrochloric acid production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.75; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**SUBPART H—HYDROFLUORIC ACID  
PRODUCTION SUBCATEGORY**

**§ 415.80 Applicability; description of the hydrofluoric acid production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of hydrofluoric acid.

### § 415.81 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

### § 415.82 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dic-

tated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) Subject to the provisions of paragraphs (b), (c), and (d) of this section, there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed and operated so as to contain the precipitation from the 10 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 10 year, 24 hour rainfall event, when such event occurs.

(c) During any calendar month there may be discharged from a process waste water impoundment either a volume of process waste water equal to the difference between the precipitation for that month that falls within the impoundment and the evaporation for that month, or, if greater, a volume of process waste water equal to the difference between the mean precipitation for that month that falls within the impoundment and the mean evaporation for that month as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located (or as otherwise determined if no monthly data have been established by the National Climatic Center).



(d) Any process waste water discharged pursuant to paragraph (c) of this section shall comply with each of the following requirements:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (milligrams per liter)	
Fluoride.....	30	15
TSS.....	50	25
pH.....	Within the range 6.0 to 9.0.	
	English units (parts per million)	
Fluoride.....	30	15
TSS.....	50	25
pH.....	Within the range 6.0 to 9.0.	

**§ 415.83 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) Subject to the provisions of paragraph (b) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as

established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

**§ 415.84 [Reserved]**

**§ 415.85 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraph (b) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

**§ 415.86 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the hydrofluoric acid production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this

section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.85; *Provided, That*, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

#### **SUBPART I—HYDROGEN PEROXIDE PRODUCTION SUBCATEGORY**

##### **§ 415.90 Applicability; description of the hydrogen peroxide production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of hydrogen peroxide by the electrolytic process and by the oxidation of alkyl hydroanthraquinones.

##### **§ 415.91 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "product" shall mean hydrogen peroxide as a one hundred percent hydrogen peroxide solution.

(c) The term "CyanideA" shall mean those cyanides amenable to chlorination as described in *1972 Annual Book of ASTM Standards*, 1972. Standard D2036-72, Method B, page 553.

##### **§ 415.92 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quan-



tity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen peroxide manufacture by the oxidation of alkyl hydroanthraquinones.

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
TSS.....	0.8	0.4
TOC.....	.44	.22
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
TSS.....	0.8	0.4
TOC.....	.44	.22
pH.....	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen peroxide manufacture by the electrolytic process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
TSS.....	0.005	0.0025
Cyanide A.....	.0004	.0002
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
TSS.....	0.005	0.0025
Cyanide A.....	.0004	.0002
pH.....	Within the range 6.0 to 9.0.	

**§ 415.93 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen peroxide manufacture by the oxidation of alkyl hydroanthraquinones: there shall be no discharge of process waste water pollutants to navigable waters.

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen peroxide manufacture by the electrolytic process:

(1) Subject to the provisions of paragraph (b)(2) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(2) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

#### **§ 415.94 [Reserved]**

#### **§ 415.95 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart:

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from hydrogen peroxide manufacture by the oxidation of alkyl hydroanthraquinones: there shall be no discharge of process waste water pollutants to navigable waters.

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in

process waste water from hydrogen peroxide manufacture by the electrolytic process:

(1) Subject to the provisions of paragraph (b)(2) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(2) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

#### **§ 415.96 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the hydrogen peroxide production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.95; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.



## **SUBPART J—NITRIC ACID PRODUCTION SUBCATEGORY**

### **§ 415.100 Applicability; description of the nitric acid production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of nitric acid in concentrations up to 68 percent.

### **§ 415.101 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

### **§ 415.102 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Re-

gional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: there shall be no discharge of process waste water pollutants to navigable waters.

### **§ 415.103 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

### **§ 415.104 [Reserved]**

### **§ 415.105 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties,

controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.106 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the nitric acid production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.105; *Provided, That*, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

\* \* \* \* \*

**SUBPART O—SODIUM CARBONATE  
PRODUCTION SUBCATEGORY**

**§ 415.150 Applicability; description of the sodium carbonate production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of sodium carbonate by the Solvay Process.

**§ 415.151 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "product" shall mean sodium carbonate.

**§ 415.152 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent



than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
TSS.....	0.20	0.10
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS.....	0.20	0.10
pH.....	Within the range 6.0 to 9.0.	

**§ 415.153 Effluent limitations guideline representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject

to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
TSS.....	0.34	0.17
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS.....	0.34	0.17
pH.....	Within the range 6.0 to 9.0.	

**§ 415.154 [Reserved]**

**§ 415.155 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.156 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the sodium carbonate production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the

navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.155: *Provided, That*, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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#### **SUBPART Q—SODIUM DICHROMATE AND SODIUM SULFATE PRODUCTION SUBCATEGORY**

##### **§ 415.170 Applicability; description of the sodium dichromate and sodium sulfate production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of sodium dichromate and by-product sodium sulfate.

##### **§ 415.171 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "product" shall mean sodium dichromate.

(c) The term "Cr(T)" shall mean total chromium.

(d) The term "Cr(+6)" shall mean hexavalent chromium.

##### **§ 415.172 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality



of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms for 1,000 kg of product)		
TSS.....	0.44	0.22
Cr (+6).....	.009	.0005
Cr (T).....	.0088	.0044
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
TSS.....	0.44	0.22
Cr (+6).....	.009	.0005
Cr (T).....	.0088	.0044
pH.....	Within the range 6.0 to 9.0.	

**§ 415.173 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) Subject to the provisions of paragraph (b) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

**§ 415.174 [Reserved]**

**§ 415.175 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kg/kg of product)		
TSS	0.30	0.15
Cr (+6)	0.009	0.0005
Cr (T)	0.0088	0.0044
pH	Within the range 6.0 to 9.0.	
English units (lb/1000 lb of product)		
TSS	0.30	0.15
Cr (+6)	0.009	0.0005
Cr (T)	0.0088	0.0044
pH	Within the range 6.0 to 9.0.	

**§ 415.176 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the sodium dichromate and sodium sulfate production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.175; *Provided, That*, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**SUBPART R—SODIUM METAL PRODUCTION  
SUBCATEGORY**

**§ 415.180 Applicability; description of the sodium metal production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of sodium metal by the Downs cell process.

**§ 415.181 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "product" shall mean sodium metal.

**§ 415.182 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or



the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
TSS.....	0.46	0.23
pH.....	Within the range 6.0 to 9.0.	
English units ( pounds per 1,000 lb of product )		
TSS.....	0.46	0.23
pH.....	Within the range 6.0 to 9.0.	

**§ 415.183 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) Subject to the provisions of paragraph (b) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

**§ 415.184 [Reserved]**

**§ 415.185 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraph (b) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

**§ 415.186 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the sodium metal production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.185; *Provided, That*, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**SUBPART S—SODIUM SILICATE PRODUCTION  
SUBCATEGORY**

**§ 415.190 Applicability; description of the sodium silicate production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of sodium silicate.

**§ 415.191 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "product" shall mean sodium silicate.

**§ 415.192 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines.



On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed
	Metric units (kilograms per 1,000 kg of product)	
TSS.....	0.01	0.005
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS.....	0.01	0.005
pH.....	Within the range 6.0 to 9.0.	

**§ 415.193 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) Subject to the provisions of paragraph (b) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 years, 24 hour rainfall event as established by the National Climatic Center, National Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

**§ 415.194 [Reserved]**

**§ 415.195 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

(a) Subject to the provisions of paragraph (b) of this section there shall be no discharge of process waste water pollutants into navigable waters.

(b) A process waste water impoundment which is designed, constructed, and operated so as to contain the precipitation from the 25 year, 24 hour rainfall event as established by the National Climatic Center, National

Oceanic and Atmospheric Administration for the area in which such impoundment is located may discharge that volume of process waste water which is equivalent to the volume of precipitation that falls within the impoundment in excess of that attributable to the 25 year, 24 hour rainfall event, when such event occurs.

**§ 415.196 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the sodium silicate production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this Chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.195; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

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**SUBPART U—SULFURIC ACID PRODUCTION  
SUBCATEGORY**

**§ 415.210 Applicability; description of the sulfuric acid production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of sulfuric acid in single and double adsorption plants. The provisions are

not applicable to discharges from plants recovering waste sulfuric acid.

**§ 415.211 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

**§ 415.212 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional



Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.213 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.214 [Reserved]**

**§ 415.215 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart: there shall be no discharge of process waste water pollutants to navigable waters.

**§ 415.216 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the sulfuric acid production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this Chapter, except that, for the purpose of this section, § 128.133 of this Chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.215; *Provided, That*, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

**SUBPART V—TITANIUM DIOXIDE PRODUCTION  
SUBCATEGORY**

**§ 415.220 Applicability; description of the titanium dioxide production subcategory.**

The provisions of this subpart are applicable to discharges resulting from the production of titanium dioxide by the sulfate process and by the chloride process.

**§ 415.221 Specialized definitions.**

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in 40 CFR 401 shall apply to this subpart.

(b) The term "product" shall mean titanium dioxide.

(c) The term "iron" shall mean total iron.

**§ 415.222 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.**

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharges are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent

dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from titanium dioxide manufacture by the chloride process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
TSS.....	4.6	2.3
Iron.....	.72	.36
pH.....	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
TSS.....	4.6	2.3
Iron.....	.72	.36
pH.....	Within the range 6.0 to 9.0.	



(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from titanium dioxide manufactured by the sulfate process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product )		
TSS.....	21.0	10.5
Iron.....	1.7	.84
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product )		
TSS.....	21.0	10.5
Iron.....	1.7	.84
pH.....	Within the range 6.0 to 9.0.	

**§ 415.223 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.**

The following limitations establish the quantity or quality of pollutants or pollutant properties which may be dis-

charged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from titanium dioxide production by the chloride process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product)		
TSS.....	2.6	1.3
Iron.....	.36	.18
pH.....	Within the range 6.0 to 9.0.	
English units (pounds per 1,000 lb of product)		
TSS.....	2.6	1.3
Iron.....	.36	.18
pH.....	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste

water from titanium dioxide manufacture by the sulfate process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
Metric units (kilograms per 1,000 kg of product )		
TSS.....	10.6	5.3
Iron.....	.84	.42
pH.....	Within the range 6.0 to 9.0.	
English units ( pounds per 1,000 lb of product )		
TSS.....	10.6	5.3
Iron.....	.84	.42
pH.....	Within the range 6.0 to 9.0.	

**§ 415.224 [Reserved]**

**§ 415.225 Standards of performance for new sources.**

The following standards of performance establish the quantity or quality of pollutants or pollutant properties which may be discharged by a new source subject to the provisions of this subpart:

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties,

controlled by this paragraph, which may be discharged in process waste water from titanium dioxide manufacture by the chloride process:

Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units ( kilograms per 1,000 kg of product )	
TSS.....	2.6	1.3
Iron.....	.36	.18
pH.....	Within the range 6.0 to 9.0.	
	English units ( pounds per 1,000 lb of product )	
TSS.....	2.6	1.3
Iron.....	.36	.18
pH.....	Within the range 6.0 to 9.0.	

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged in process waste water from titanium dioxide manufacture by the sulfate process:



Effluent characteristic	Effluent limitations	
	Maximum for any 1 day	Average of daily values for 30 consecutive days shall not exceed—
	Metric units ( kilograms per 1,000 kg of product )	
TSS	10.6	5.3
Iron	.84	.42
pH	Within the range 6.0 to 9.0.	
	English units ( pounds per 1,000 lb of product )	
TSS	10.6	5.3
Iron	.84	.42
pH	Within the range 6.0 to 9.0.	

**§ 415.226 Pretreatment standards for new sources.**

The pretreatment standards under section 307(c) of the Act for a source within the titanium dioxide production subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this chapter, except that, for the purpose of this section, § 128.133 of this chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible

pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 415.225; *Provided, That*, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

[FR Doc. 74-5591 Filed 3-11-74; 8:45 am]

**APPENDIX C****"EFFLUENT GUIDELINES AND STANDARDS:  
GENERAL PROVISIONS."**

The rulemaking order promulgating the foregoing regulations is found at 39 *Fed. Reg.* 4531-33 (February 4, 1974). The preamble of the order and the text of the regulations are as follows:

**Title 40—Protection of the Environment****CHAPTER I—ENVIRONMENTAL PROTECTION  
AGENCY****Subchapter N—Effluent Guidelines and Standards****PART 401—GENERAL PROVISIONS**

Notice was published in the *FEDERAL REGISTER*, August 22, 1973, (38 FR 22606) of the proposal of 40 CFR Part 401 setting forth certain provisions applicable to all further regulations for particular categories of point sources to be issued under 40 CFR Parts 402 through 699. These regulations will provide effluent limitations guidelines for existing sources, standards of performance for new sources and pretreatment standards for new and existing sources pursuant to sections 301, 304 (b) and (c), 306 (b) and (c), 307 (b) and (c) and 316 (b) of the Federal Water Pollution Control Act, as amended, (the "Act") 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), 1317 (b) and (c) and 1326 (c); 86 Stat. 816 et seq.; Pub. L. 92-500. Part 401 is intended to provide a description of the applicable legal authorities and definitions which will apply throughout the series of individual regulations.

The regulation as set forth below contains minor departures from the proposed regulation published at 38 FR 22606. No comments were received from the public concerning this regulation. Additions and changes were made in order to clarify for the public such terms, definitions, abbreviations, and parameters commonly used by the Environmental Protection Agency in the issuance of and



appertaining to the regulations set forth at 40 CFR Parts 402 through 699.

The principal revisions to this proposed regulation are as follows:

(1) Section 401.11 *General definitions* has been expanded beyond the proposed version to include certain abbreviations which are used throughout Parts 402 through 699, and to define certain additional specialized terms frequently used in Parts 402 through 699 including "process waste water," "process waste water pollutants," "noncontact cooling water," "noncontact cooling water pollutants," and "blowdown." The inclusion of these terms and abbreviations in the list of generally applicable definitions is intended to make the public more certain of their meaning when used throughout subsequent regulations issued at 40 CFR Parts 402 through 699.

(2) Additionally, the proposed 40 CFR Part 130 (38 FR 17318) has been superseded by 40 CFR Part 136 (38 FR 28758) "Guidelines Establishing Test Procedures For The Analysis of Pollutants" published in the *FEDERAL REGISTER*, dated October 16, 1973. Minor corrections have been made in the regulation below to reflect that change of reference.

(3) Section 401.12 has been expanded to include a description of authority under sections 304(c), 307(b) and 316(b) of the Act.

Further revision of this regulation may be made in the future to update the list of terms, definitions, abbreviations and parameters.

In consideration of the foregoing 40 CFR Ch. I, is hereby amended by adding a new Subchapter N and new Part 401, General Provisions, therein to read as set forth below. This final regulation is promulgated as set forth below and shall be effective April 5, 1974.

Dated: January 22, 1974.

JOHN QUARLES,  
Acting Administrator.

Sec.

401.10 Scope and purpose.

401.11 General definitions.

401.12 Law authorizing establishment of effluent limitations guidelines for existing sources, standards of performance for new sources and pretreatment standards for new and existing sources.

401.13 Test procedures for measurement.

AUTHORITY: Secs. 301, 304 (b) and (c), 306 (b) and (c), 307 (b) and (c) and 316 (b) of the Federal Water Pollution Control Act, as amended (the "Act"), 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), 1317 (b) and (c) and 1326 (c); 36 Stat. 816 et seq.; Pub. L. 92-500.

#### § 401.10 Scope and purpose.

Regulations promulgated or proposed under Parts 402 through 699 of this subchapter prescribe effluent limitations guidelines for existing sources, standards of performance for new sources and pretreatment standards for new and existing sources pursuant to sections 301, 304 (b) and (c), 306 (b) and (c), 307 (b) and (c) and 316 (b) of the Federal Water Pollution Control Act, as amended (the "Act"), 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), 1317 (b) and (c) and 1326 (b); 86 Stat. 816; Pub. L. 92-500. Point sources of discharges of pollutants are required to comply with these regulations, where applicable, and permits issued by States or the Environmental Protection Agency (EPA) under the National Pollutant Discharge Elimination System (NPDES) established pursuant to section 402 of the Act must be conditioned upon compliance with applicable requirements of sections 301 and 306 (as well as certain other requirements). This Part 401 sets forth the legal authority and general definitions which will apply to all regulations issued concerning specific classes and categories of point sources under Parts 402 through 699 of this subchapter which follow. In certain instances the regulations applicable to a particular point

source category or subcategory will contain more specialized definitions. In the case of any conflict between regulations issued under this Part 401 and regulations issued under Parts 402 through 699 of this subchapter, the latter more specific regulations shall apply.

#### § 401.11 General definitions.

For the purpose of Parts 402 through 699 of this subchapter:

(a) The term "Act" means the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq., 86 Stat. 816, Pub. L. 92-500.

(b) The term "Administrator" means the Administrator of the United States Environmental Protection Agency.

(c) The term "Environmental Protection Agency" means the United States Environmental Protection Agency.

(d) The term "point source" means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged.

(e) The term "new source" means any building, structure, facility or installation from which there is or may be the discharge of pollutants, the construction of which is commenced after the publication of proposed regulations prescribing a standard of performance under section 306 of the Act which will be applicable to such source if such standard is thereafter promulgated in accordance with section 306 of the Act.

(f) The term "pollutant" means dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal and agricultural waste discharged into water. It does not mean (1) sewage

from vessels or (2) water, gas or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well, used either to facilitate production or for disposal purposes, is approved by authority of the State in which the well is located, and if such State determines that such injection or disposal will not result in degradation of ground or surface water resources.

(g) The term "pollution" means the man-made or man induced alteration of the chemical, physical, biological and radiological integrity of water.

(h) The term "discharge of pollutant(s)" means (1) the addition of any pollutant to navigable waters from any point source and (2) any addition of any pollutant to the waters of the contiguous zone or the ocean from any point source, other than from a vessel or other floating craft. The term "discharge" includes either the discharge of a single pollutant or the discharge of multiple pollutants.

(i) The term "effluent limitation" means any restriction established by the Administrator on quantities, rates, and concentrations of chemicals, physical, biological and other constituents which are discharged from point sources, other than new sources, into navigable waters, the waters of the contiguous zone or the ocean.

(j) The term "effluent limitations guidelines" means any effluent limitations guidelines issued by the Administrator pursuant to section 304(b) of the Act.

(k) The term "standard of performance" means any restriction established by the Administrator pursuant to section 306 of the Act on quantities, rates, and concentrations of chemical, physical, biological, and other constituents which are or may be discharged from new sources into navigable waters, the waters of the contiguous zone or the ocean.

(1) The term "navigable waters" includes: All navigable waters of the United States; tributaries of navigable waters



of the United States; interstate waters; intrastate lakes, rivers, and streams which are utilized by interstate travelers for recreational or other purposes; intrastate lakes, rivers, and streams from which fish or shellfish are taken and sold in interstate commerce; and intrastate lakes, rivers, and streams which are utilized for industrial purposes by industries in interstate commerce.

(m) The terms "state water pollution control agency," "interstate agency," "State," "municipality," "person," "territorial seas," "contiguous zone," "biological monitoring," "schedule of compliance," and "industrial user" shall be defined in accordance with section 502 of the Act unless the context otherwise requires.

(n) The term "noncontract cooling water" means water used for cooling which does not come into direct contact with any raw material, intermediate product, waste product or finished product.

(o) The term "noncontact cooling water pollutants" means pollutants present in noncontact cooling waters.

(p) The term "blowdown" means the minimum discharge of recirculating water for the purpose of discharging materials contained in the water, the further buildup of which would cause concentration in amounts exceeding limits established by best engineering practice.

(q) The term "process waste water" means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product, or waste product.

(r) The term "process waste water pollutants" means pollutants present in process waste water.

(s) The following abbreviations shall have the following meanings: (1) "BOD5" means five-day biochemical oxygen demand; (2) "COD" means chemical oxygen demand; (3) "TOC" means total organic carbon; (4) "TDS" means

total dissolved solids; (5) "TSS" means total suspended non-filterable solids; (6) "kw" means kilowatt(s); (7) "kwh" means kilowatt hour(s); (8) "Mw" means megawatt(s); (9) "Mwh" means megawatt hour(s); (10) "hp" means horsepower; (11) "mm" means millimeter(s); (12) "cm" means centimeter; (13) "m" means meter(s); (14) "in." means inch; (15) "ft" means foot (feet); (16) "l" means liter(s); (17) "cu m" means cubic meter(s); (18) "k cu m" means 1000 cubic meter(s); (19) "gal" means gallon(s); (20) "cu ft" means cubic foot (feet); (21) "mg" means milligram(s); (22) "g" means gram(s); (23) "kg" means kilogram(s); (24) "kkg" means 1000 kilogram(s); (25) "lb" means pound(s); (26) "sq m" means square meter(s); (27) "ha" means hectare(s); (28) "sq ft" means square foot (feet); and (29) "ac" means acre(s).

**§ 401.12 Law authorizing establishment of effluent limitations guidelines for existing sources, standards of performance for new sources and pretreatment standards of new and existing sources.**

(a) Section 301(a) of the Act provides that "except as in compliance with this section and sections 302, 306, 307, 318, 402 and 404 of this Act, the discharge of any pollutant by any person shall be unlawful."

(b) Section 301(b) of the Act requires the achievement by not later than July 1, 1977, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best practicable control technology currently available as determined by the Administrator pursuant to section 304(b)(1) of the Act. Section 301(b) also requires the achievement by not later than July 1, 1983, of effluent limitations for point sources, other than publicly owned treatment works, which require the application of the best available technology economically achievable which will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations

issued by the Administrator pursuant to section 304(b)(2) of the Act.

(c) Section 304(b) of the Act requires the Administrator to publish regulations providing guidelines for effluent limitations setting forth the degree of effluent reduction attainable through the application of the best practicable control technology currently available and the degree of effluent reduction attainable through the application of the best control measures and practices achievable including treatment techniques, process and procedure innovations, operating methods and other alternatives.

(d) Section 304(c) of the Act requires the Administrator, after consultation with appropriate Federal and State agencies and other interested persons to issue information on the process, procedures, or operating methods which result in the elimination or reduction of the discharge of pollutants to implement standards of performance under section 306 of the Act.

(e) Section 306(b)(1)(B) of the Act requires the Administrator, after a category of sources is included in a list published pursuant to section 306(b)(1)(A) of the Act, to propose regulations establishing Federal standards of performances for new sources within such category. Standards of performance are to provide for the control of the discharge of pollutants which reflect the greatest degree of effluent reduction which the Administrator determines to be achievable through application of the best available demonstrated control technology, processes, operating methods, or other alternatives, including, where practicable, a standard permitting no discharge of pollutants.

(f) Section 307(b) provides that the Administrator shall establish pretreatment standards which shall prevent the discharge of any pollutant into publicly owned treatment works which pollutant interferes with, passes through untreated, or otherwise is incompatible with such works.

(g) Section 307(c) of the Act provides that the Administrator shall promulgate pretreatment standards for sources

which would be "new sources" under section 306 (if they were to discharge pollutants directly to navigable waters) at the same time standards of performance for the equivalent category of new sources are promulgated.

(h) Section 316(b) of the Act provides that any standard established pursuant to section 301 or section 306 of the Act and applicable to a point source shall require that the location, design, construction, and capacity of cooling water intake structures reflect the best technology available for minimizing adverse environmental impact.

(i) Section 402(a)(1) of the Act provides that the Administrator may issue permits for the discharge of any pollutant upon condition that such discharge will meet all applicable requirements under sections 301, 302, 306, 307, 308 and 403 of this Act. In addition, section 402(b)(1)(A) of the Act requires that permits issued by States under the National Pollutant Discharge Elimination System (NPDES) established by the Act must apply, and insure compliance with any applicable requirements of sections 301, 302, 306, 307 and 403 of the Act.

#### **§ 401.13 Test procedures for measurement.**

The test procedures for measurement which are prescribed at Part 136 of this chapter shall apply to expressions of pollutant amounts, characteristics or properties in effluent limitations guidelines and standards of performance and pretreatment standards as set forth at Parts 402 through 699 of this subchapter, unless otherwise specifically noted or defined in said parts.

[FD Doc.74-2348 Filed 2-1-74;8:45 am]



**APPENDIX D**

EPA actions not subject to direct review in the courts of appeals under Section 509 include:

(1) *Regulations Governing the Issuance of Permits—*

(a) *Ocean Discharge Criteria (Section 403).* The Act requires EPA to “promulgate guidelines for determining the degradation of the waters of the territorial seas, the contiguous zone, and the oceans.” Section 403(c)(1), 33 U.S.C. § 1343(c)(1). The substantive requirement of salt water protection which these standards implement is parallel and of importance equal to the technological requirements of Section 301(b). Permits under Section 402 for dumping into the waters covered by the guidelines may not be issued “except in compliance with such guidelines.” Section 403(a), 33 U.S.C. § 1343(a).

(b) *Guidelines for Disposal of Dredged or Fill Material (Section 404).* Authority to issue permits for disposal of dredged or fill material into navigable water resides with the Corps of Engineers. The designation of disposal sites in such permits must be from “application of guidelines” established by EPA “in conjunction with” the Corps. Section 404 guidelines for permits are not reviewable under Section 509.

(c) *Regulations on Disposal of Sewage Sludge (Section 405).* An EPA permit must be obtained for the disposal in navigable waters from public treatment systems. Section 405(a), 33 U.S.C. § 1345(a). Such permits are to be based on EPA “regulations governing the disposal of sewage sludge.” Section 405(b), 33 U.S.C. § 1345(b).

(2) *Major Regulatory Actions.* Further demonstration of the limited scope of Section 509 lies in the fact that it does not cover a large number of important EPA regulatory actions—

(a) *Area-Wide Waste Management Plans (Section 208).* In addition to the guidelines noted above for the control

of nonpoint sources of pollution in area-wide waste management, the 1972 Act gives EPA authority to issue guidelines and requires approval of various elements of this basic program. Section 208 (a)(1) and (7), (b)(1) and (3), and (c)(2), 33 U.S.C. § 1288 (a)(1) and (7), (b)(1) and (3), and (c)(2).

(b) *Water Quality Standards (Section 303)*. State-adopted water quality standards are subject to approval by EPA and, if not approved, such standards must be promulgated by EPA. Similarly, State plans for allocating allowable waste loads among discharges must be presented to EPA with EPA required to promulgate a substitute if it determines that the State allocation does not meet the requirements of the Act. Section 303, 33 U.S.C. § 1313. The water quality standards and the allocation implement the requirements of Section 301(b)(1)(C) and 302 for water-quality based effluent limitations.

(c) *Spills of Oil and Hazardous Materials (Section 311)*. Section 311 authorizes substantial fines and penalties for spills of oil and hazardous materials. Section 311(b)(2)(B) and (b)(5) and (6), as amended, 33 U.S.C. § 1321(b)(2)(B) and (b)(5) and (6). EPA is required to develop regulations governing the discharges (spills) for which liability may occur and the magnitude of the liability and requirements applicable to individual plants for prevention of such incidents. Section 311(b)(2), (3), and (4) and (j), 33 U.S.C. § 1321(b)(1), (2), and (3) and (j).

(3) *Other EPA actions under Section 304*. Section 304 is entitled "Information and Guidelines." Not one of the promulgations by EPA is covered by Section 509. Among them are—

(a) *Section 305(a)*. EPA must establish the water quality criteria on which State water quality standards under Section 303 are based. State water quality standards are the alternative to technology for *effluent limitations* under Section 301(b)(1)(C) and 302.

(b) *Section 304(c)*. EPA must publish information on the means of reducing effluent discharges for the purpose of meeting the new source standards of performance under Section 306. Standards for new plants are covered under Section 509(b), but technological benchmarks for new source standards are not. Section 304(c) serves a function somewhat similar to the identification in Section 304(b) of effluent reductions and the factors to be assessed in determining effluent limitations based on best practicable and best available technology.

(c) *Section 304(d)*. EPA must publish information on "effluent reductions attainable" through the application of secondary treatment by public sewer systems. Secondary treatment is the technological basis for public sewer system "*effluent limitations*" under Section 301(b)(1)(B). EPA also must publish information on alternative waste management techniques meeting the criteria of best practicable waste treatment technology. Best practicable technology is the basis for the Section 301(b)(2) standard for public sewers. Section 304(d) is not mentioned in Section 509.

(d) *Section 304(e)*. EPA must publish "(1) *guidelines* for identifying the nature and extent of nonpoint sources of pollutants and (2) processes, procedures, and methods to control pollution from" agricultural, construction, sub-surface-disposal, and other "nonpoint" sources. Such guidelines are not academic studies for use by the States in their discretion. Control of non-point sources is a mandatory part of State plans for area-wide management. Section 208(b)(2)(F) to (I) and (K), 33 U.S.C. § 1288(b)(2)(F) to (I) and (K). Area-wide waste management programs were considered to be among the most important of the 1972 Act. (See H.R. Rep. No. 92-911, 92d Cong., 2d Sess., at 72, 95 (1972).) No discharge permit may be issued contrary to an area-wide plan. (Section 208(e), 33 U.S.C. § 1288(e).) Grants for public sewer systems may not be issued except as consistent with an area-wide plan. (Section 208(d).) No less than the technological effluent limitations under Section 301(b), area-wide waste



management plans are a key to the congressional program for clean water and to discharge permits for public sewer systems and industrial sources.

(e) *Section 304(f)*. EPA is required to promulgate pretreatment standards for existing sources. (Section 307(b).) It also must promulgate pretreatment standards for new sources. (Section 307(c).) Both, through the 1973 amendments to the Act, are covered by Section 509(b). But EPA has other obligations with respect to the quality of industrial effluent prior to its introduction into a public sewer system. Under Section 304(f), EPA must publish "*guidelines for pretreatment of pollutants which it determines are not susceptible to treatment by publicly owned treatment works.*" Significantly, these guidelines are for the purpose of "assisting the States in carrying out programs under Section 402" by establishing conditions of NPDES permits for public sewer systems consistent with the Act, and the guidelines are to "designate the category or categories of treatment works to which the guidelines apply." There is no suggestion that the provisions of Section 509 apply to the pretreatment guidelines of Section 304(f).

(f) *Section 304(g)*. EPA is required to "promulgate *guidelines* establishing test procedures for analysis of pollutants." These guidelines are applied in connection with permit applications, are applied as a part of reporting requirements in conditions of issued permits, and are used in enforcement actions.

(g) *Section 304(h)*. EPA must "promulgate *guidelines* for the purpose of establishing uniform application forms and other minimum requirements for the acquisition of information from owners and operators of point-sources" and "promulgate *guidelines* establishing minimum procedural and other elements of any State program under Section 402." EPA's approval or disapproval of a particular State program is covered by Section 509; the guidelines for State programs are not.

(4) *Other Regulations*. Not all EPA guidelines and regulations provide bases for permits, but many in addi-

tion to those in Section 304 have an important regulatory impact.

(a) *User Charge Guidelines (Section 204(b)(2))*. Assessment of user charges from industrial sewers is a requirement for construction grants and NPDES for public sewer systems. Sections 204(b)(1), 33 U.S.C. § 1284(b)(1); Section 402(b)(9), 33 U.S.C. § 1342(b)(9) "Guidelines" issued by EPA govern such charges. Section 204(b)(2), 33 U.S.C. § 1284(b)(2).

(b) *Guidelines and Regulations for Issuance of Construction Grants (Sections 201(g)(4), 205(a), and 212(2)(c))*. Upgrading of public sewage treatment by infusion of Federal funds is a critical aspect of the 1972 Act. Many important standards and conditions for Federal grants and construction are to be established by EPA regulations and guidelines. Sections 201(g)(4), 33 U.S.C. § 1281(g)(4); 205(a), 33 U.S.C. § 1285(a); 212(2)(C), 33 U.S.C. § 1292(2)(C). Neither these regulations and guidelines nor EPA issuance (or refusal to issue) construction grants are within the scope of Section 509.

(c) *Aquaculture Guidelines (Section 318)*. EPA is authorized to permit the discharge of pollutants from aquaculture projects. Section 318(a), 33 U.S.C. § 1328(a). To implement that authority, EPA must "by regulation \* \* \* establish any procedures and guidelines [the Administrator] deems necessary." Section 318(a), 33 U.S.C. § 1328(a).